

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of

Implementation of Sections 716 and 717 of  
the Communications Act of 1934, as Enacted  
by the Twenty-First Century Communications  
and Video Accessibility Act of 2010

Entertainment Software Association Petition  
for Class Waiver of Sections 716 and 717 of  
the Communications Act and Part 14 of the  
Commission's Rules Requiring Access to  
Advanced Communications Services (ACS)  
and Equipment by People with Disabilities

CG Docket No. 10-213

**PETITION FOR EXTENSION OF WAIVER OF THE  
ENTERTAINMENT SOFTWARE ASSOCIATION**

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## INTRODUCTION AND SUMMARY

Last year, the Consumer and Governmental Affairs Bureau (“Bureau”) determined that it would serve the public interest to extend a class waiver of the Federal Communications Commission’s (“FCC’s” or “Commission’s”) Part 14 advanced communications services (“ACS”) rules for video game software until January 1, 2017.<sup>1</sup> It did so in part because a waiver extension would allow industry to release innovative video games with communications functions as it continued to explore ACS accessibility solutions for video game software, which often presents unique accessibility challenges compared with software designed for the primary purpose of ACS.<sup>2</sup>

Entertainment Software Association (“ESA”)<sup>3</sup> members have made meaningful progress on accessibility solutions since the Bureau issued its order, but significant challenges remain with respect to enabling ACS accessibility in video game software. Accordingly, pursuant to 47 U.S.C. § 617(h)(1) and 47 C.F.R. §§ 1.3 and 14.5 and consistent with the Bureau’s determination that ESA could “come back to the Commission at a later time to request another extension of the waiver,”<sup>4</sup> ESA respectfully requests that the Bureau continue to apply the current ACS waiver for video game software for an additional twelve-month period, until **January 1, 2018**. This modest extension of the waiver would serve the public interest.

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<sup>1</sup> See generally *Entertainment Software Association Petition for Class Waiver of Sections 716 and 717 of the Communications Act and Part 14 of the Commission’s Rules Requiring Access to Advanced Communications Services and Equipment by People with Disabilities*, Order, 30 FCC Rcd. 10,016 (CGB 2015) (“2015 Waiver Order”).

<sup>2</sup> *Id.* ¶¶ 18, 24.

<sup>3</sup> The ESA is the U.S. association exclusively dedicated to serving the business and public affairs needs of companies that publish computer and video games for video game consoles, handheld devices, personal computers, and the Internet.

<sup>4</sup> 2015 Waiver Order ¶ 25.

ESA’s members strongly believe that all of their customers—including individuals with disabilities—should be able to enjoy the rich and engaging entertainment offered by video games. Our industry has made demonstrable progress on accessibility, as explained further below. Extending the waiver for a twelve-month period will enable the video game industry to continue to experiment with accessibility solutions for ACS features in video game software, while at the same time incorporating non-primary ACS features in games.

#### **I. VIDEO GAME SOFTWARE CONTINUES TO BE ELIGIBLE FOR WAIVER.**

The ACS rules contemplate that the Commission may waive the ACS obligations for services and equipment that, while capable of accessing ACS, are designed primarily for purposes other than using ACS.<sup>5</sup> In evaluating the “primary purpose” of the equipment or services, the Commission considers, on a case-by-case basis, whether the manufacturer designed the offering primarily to be used for ACS by the general public or for another primary reason, and whether the manufacturer or provider marketed the equipment or service primarily for its ACS functions.<sup>6</sup> In addition, the Commission may consider the extent to which ACS supports another feature, purpose, or task, as well as the impact that removal of the ACS feature would have on the “primary purpose” of the equipment or service.<sup>7</sup> For class waivers, the Commission also will consider whether the services or equipment “share common defining characteristics.”<sup>8</sup>

As the Bureau determined last year, video game software meets the Part 14 waiver eligibility requirements because (1) “video game software ... [has] sufficient specificity and

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<sup>5</sup> See 47 C.F.R. § 14.5(a)(1)(i)-(ii).

<sup>6</sup> See *id.* § 14.5(a)(2)(i)-(ii); see also *Implementation of Sections 716 and 717 of the Communications Act of 1934, as Enacted by the Twenty-First Century Communications and Video Accessibility Act of 2010*, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd. 14,557, 14,635-36 ¶ 186 (2011) (“ACS Report and Order”).

<sup>7</sup> See ACS Report and Order ¶ 186.

<sup>8</sup> 47 C.F.R. § 14.5(b).

shares enough common defining characteristics” and (2) “video game software is capable of accessing ACS but is nonetheless designed primarily for purposes other than the use of ACS.”<sup>9</sup>

This is still the case today.

First, as ESA previously has explained, numerous parties treat video game software designed for the primary purpose of game play as a clearly defined class of products separate from other forms of software, internet services, and entertainment media.<sup>10</sup> The Bureau agreed with this assessment in the *2015 Waiver Order*, finding that “video game software [which] include[s] playable games on any hardware or online platform, including game applications that are built into operating system software” constitutes a sufficiently separate category of devices to warrant a class waiver.<sup>11</sup> ESA proposes that the Bureau continue to use this same definition when assessing ESA’s waiver extension request.

Video game software also continues to be designed primarily for the purpose of game play, and not ACS. The importance of ACS features to the overall game experience has not changed over the past year. Indeed, what the Bureau recognized last year in the *2015 Waiver Order* still holds true today: “ACS ... plays only a peripheral role in video game software,” and “the role of ACS as a complement to game play is no more significant today than it was” when the Bureau first granted a Part 14 class waiver for video game software.<sup>12</sup>

The Part 14 waiver rules contemplate that, when evaluating petitions, the Commission will examine “[w]hether and how the advanced communications functions or features [for the

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<sup>9</sup> *2015 Waiver Order* ¶¶ 16-17.

<sup>10</sup> Petition of the Entertainment Software Association for Partial Extension of Waiver at 6, CG Docket No. 10-213 (filed May 22, 2015) (“2015 Petition”).

<sup>11</sup> *2015 Waiver Order* ¶ 16.

<sup>12</sup> *Id.* ¶ 17 (quoting 2015 Petition at 1, 4).

equipment at issue] are advertised, announced, or marketed.”<sup>13</sup> Thus, “[a]mong the factors used to determine whether ACS is a primary or co-primary use in gaming is the extent to which the ACS functionality is advertised, announced, or marketed to consumers as a reason for purchasing, installing, downloading, or accessing the equipment or service.”<sup>14</sup>

In granting ESA’s 2015 petition, the Bureau found that “video game software marketing currently emphasizes game playing, not ACS.”<sup>15</sup> As was the case last year, the video game industry continues to offer game software in numerous genres, including (1) action games that often focus on combat and reward quick reflexes and accuracy; (2) sports games that enable users to play simulated athletic competitions against virtual opponents or other users; (3) role-playing games that enable the user to take on the identity of a character in an alternate world and complete quests; (4) strategy games that require careful planning to achieve victory (*e.g.*, competing for economic resources, racing to develop new technologies, or engaging in military campaigns); and (5) card, trivia, and puzzle games.<sup>16</sup> As illustrated by materials included in **Exhibit A**, marketing for video game software introduced in the past year continues to emphasize game play rather than ACS functions.

***Sports Games.*** *Madden NFL 17* is the latest edition of the highly popular football simulation game published by EA Sports. As with previous versions of the game, *Madden NFL 17* includes in-game voice chat functionality. However, the game’s marketing materials do not

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<sup>13</sup> 47 C.F.R. § 14.5(a)(2)(ii).

<sup>14</sup> *Entertainment Software Association Petition for Class Waiver of Sections 716 and 717 of the Communications Act and Part 14 of the Commission’s Rules Requiring Access to Advanced Communications Services and Equipment by People with Disabilities*, Order, 27 FCC Rcd. 12,970, 12,987 ¶ 35 (CGB 2012) (“2012 Waiver Order”).

<sup>15</sup> 2015 Waiver Order ¶ 17.

<sup>16</sup> *See, e.g.*, Comments of the Entertainment Software Association at 5-6, GN Docket No. 14-28 (filed July 22, 2014).

highlight in-game chat, and instead focus entirely on new features and improvements to game play. For example, the game's features overview webpage emphasizes innovations that make the game more realistic and strategic, including new ball carrier controls, a path assist function that improves navigation on the field, and completely new zone coverage options.<sup>17</sup> Recent press releases for the game also emphasize game play features, such as the addition of new commentators, game-planning strategies in "Franchise Play" mode, and a "Play the Moments" feature that allows players to fast-forward to the most fun and important parts of a game.<sup>18</sup> This focus on game play is consistent with the game's box art, which also does not advertise the ability to chat in-game as a primary feature of the game.<sup>19</sup> Indeed, with the exception of fine print that notes the use of Kinect voice as an optional feature on the back cover of the game's box art, there is no reference to in-game voice chat capability on the box.<sup>20</sup>

*Forza Motorsport 6* is a car racing game developed by Turn 10 Studios and published by Microsoft Studios. *Forza Motorsport 6* allows players to race over 450 different cars against others in a number of world-famous racing locales. Although *Forza Motorsport 6* includes support for multiplayer voice chat, the game's box art emphasizes the game's intense action, authentic game play, and the variety of cars, locales, and races available for play.<sup>21</sup> The website for *Forza Motorsport* similarly does not highlight voice chat in the list of supported features.<sup>22</sup>

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<sup>17</sup> Exhibit A-4; EA SPORTS, *Madden NFL 17* Features Overview (May 12, 2016), <https://www.easports.com/madden-nfl/news/2016/madden-nfl-17-features-overview>.

<sup>18</sup> Press Release, EA SPORTS Announces *Madden NFL 17* Franchise News at EA Play (June 12, 2016), <http://news.ea.com/print/node/3293>.

<sup>19</sup> See Exhibits A-1–A-4.

<sup>20</sup> See *id.*

<sup>21</sup> Exhibit A-16.

<sup>22</sup> Exhibit A-17; MICROSOFT STUDIOS, *Forza Motorsport 6*, Features (2016), <http://www.forzamotorsport.net/en-US/games/fm6/features>.

*FIFA 17*, a soccer simulation game from EA Sports, also supports voice chat, but its advertising materials highlight improved game features such as the ability to build your own team from a roster of more than 12,000 different players to compete with others for in-game rewards.<sup>23</sup> Similarly, the game’s box art and other marketing materials tout the realism of the game, including the availability of special edition uniform kits and the ability to play in “The Journey” mode “as the Premier League’s next rising star.”<sup>24</sup> Online voice chat is not highlighted as a feature in any of these materials.

***Role Playing Games.*** *Tom Clancy’s The Division*, published by Ubisoft, is an online third-person shooter role-playing game set in a near-future fantasy world. The marketing materials for *Tom Clancy’s The Division* invite players to “specialize, modify, and level up” their gear, weapons, and in-game skills in order to attempt to regain control over a destruction-ridden New York City.<sup>25</sup> The game’s box art focuses on the game’s fantasy plot, the ability to “level up” and acquire new virtual items and in-game rewards, and highlights the ability to battle either against other players or in cooperation with up to three teammates.<sup>26</sup> Although the game’s box art prominently highlights this multi-player capability of the game, there is no mention of ACS functions.

*World of Warcraft: Legion* is an expansion of Blizzard Entertainment’s massively multiplayer online roleplaying game (“MMORPG”) *World of Warcraft*. Blizzard’s website for the game invites the user to “take up Warcraft’s most legendary artifacts, scour the ancient

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<sup>23</sup> See Exhibit A-7; EA SPORTS, *FIFA 17*, Features (2016), <https://www.easports.com/fifa/features>.

<sup>24</sup> See Exhibits A-5–A-6.

<sup>25</sup> See Exhibits A-9–A-11.

<sup>26</sup> See *id.*



Broken Isles for relics of the Titans, and challenge the Legion before Azeroth's last hope dies.”<sup>27</sup>

Although *World of Warcraft: Legion* supports in-game chat, the marketing materials for this game focus on features such as the new Demon Hunter character class, additional quests and campaigns, a new land to explore, and the ability to obtain “customizable weapons that grow in power as you do.”<sup>28</sup>

**Action Games.** *Overwatch* is a team-based first-person perspective online battle arena game from Blizzard Entertainment. In *Overwatch*, players choose to participate as one of several characters, each with his or her own unique attributes, in order to compete to finish objectives in a near-future fantasy world. *Overwatch*'s official website details the large variety of characters available in the game, provides background about the game's storyline, and invites players to “band[] together to restore peace to a war-torn world.”<sup>29</sup> The game's website also highlights competitive play as a core feature of the game and describes new features to help facilitate multiplayer game play, including new rules to promote fair play, new information about other players during game play, and changes to player ranking systems.<sup>30</sup> However, the *Overwatch* website makes no mention of the game's voice or text chat functions.

*Call of Duty: Black Ops III*, is the twelfth in a highly successful and well-known series of a military science fiction first-person action games published by Activision. The focus of the game's box art is on the success and popularity of the game, as well as the game's various game

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<sup>27</sup> See Exhibit A-12; BLIZZARD ENTERTAINMENT, INC., *World of Warcraft: Legion* (2016), <http://us.battle.net/wow/en/legion/>.

<sup>28</sup> See Exhibit A-12; BLIZZARD ENTERTAINMENT, INC., *World of Warcraft: Legion* (2016), <http://us.battle.net/wow/en/legion/>.

<sup>29</sup> See Exhibit A-14.

<sup>30</sup> Exhibit A-15; BLIZZARD ENTERTAINMENT, INC., *Welcome to Season 2 of Competitive Play* (2016), <https://playoverwatch.com/en-us/blog/20271526>.

play modes and access to exclusive content on certain platforms.<sup>31</sup> While there is a reference to voice chat in fine print disclosures on the back of the box, the mention is not to tout voice chat as a primary feature of the game, but rather to clarify as part of the game’s disclosures that the use of voice chat requires a headset that is sold separately.<sup>32</sup>

*Gears of War 4: Ultimate Edition* is the latest installment of the *Gears of War* third-person-perspective combat games published by Microsoft Studios. The longstanding series—which is among the most popular and most played titles on Xbox Live—features several multiplayer modes of play that allow players to either compete or cooperate to meet in-game objectives. The game’s website makes no mention of the game’s voice chat functionality, and focuses instead on the inclusion of new game types, access to various playable maps and characters, and improved graphics.<sup>33</sup> Similarly, the game’s box art highlights access to bonus content and the game’s various modes of play, without mentioning the game’s chat features.<sup>34</sup>

In short, video game software continues to be designed primarily for the purpose of game play, and not for providing ACS.

## **II. THE VIDEO GAME INDUSTRY HAS MADE MEANINGFUL PROGRESS ON ACCESSIBILITY.**

The Bureau granted ESA’s current waiver in part because it determined that an additional waiver period would “encourage the gaming industry to incorporate accessibility designed to benefit people with disabilities.”<sup>35</sup> Importantly, the prior video game industry waiver applicable to consoles and distribution platforms expired only a year ago, and ACS obligations apply only

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<sup>31</sup> See Exhibit A-18.

<sup>32</sup> *Id.*

<sup>33</sup> Exhibit A-20; MICROSOFT STUDIOS, *Gears of War*, Games, *Gears of War Ultimate Edition* (2016), <https://gearsofwar.com/en-us/games/gears-of-war-ultimate>.

<sup>34</sup> Exhibit A-19.

<sup>35</sup> 2015 Waiver Order ¶ 24.

to new products and “substantial upgrades” of existing products released after the waiver expiration.<sup>36</sup> Nevertheless, there have already been meaningful improvements in accessibility.

First, as the International Game Developers Association Game Accessibility Special Interest Group (“IGDA Game Accessibility SIG”) confirms, there has been “[s]ome really significant progress in accessibility of consoles themselves...” in the past year.<sup>37</sup> For example, the Xbox One console has a number of new accessibility features, including a screen reader that reads aloud user interface elements such as text and buttons, a high contrast mode, and magnifying functionality.<sup>38</sup> Gamers can now engage in party chats with friends via either audio or text<sup>39</sup> while in or out of games, and the console can transcribe voice messages into text.<sup>40</sup> In addition, gamers can customize controller configuration for standard Xbox One wireless controllers<sup>41</sup> by remapping buttons and swapping triggers and sticks, and with the Xbox Elite Controller<sup>42</sup> can also change trigger and stick sensitivity, adjust the brightness of buttons, and adjust controller vibration levels. These controller configuration options benefit all gamers but may be particularly important to those with limited motor skills.<sup>43</sup>

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<sup>36</sup> See *id.* ¶ 6 & n.22.

<sup>37</sup> See INTERNATIONAL GAME DEVELOPERS ASSOCIATION, Game Accessibility Special Access Group, Wrap-up: GA-SIG Roundtable, GDC-16 (Apr. 3, 2016), <https://igda-gasig.org/2016/04/03/wrap-up-ga-sig-roundtable-gdc-16/> (“GA-SIG Roundtable Wrap Up”).

<sup>38</sup> MICROSOFT, Ease of Access Settings on Xbox One (2016), <http://support.xbox.com/en-US/xbox-one/console/ease-of-access-settings>.

<sup>39</sup> MICROSOFT, Sending Voice or Text Messages on Xbox One (2016), <https://support.xbox.com/en-US/xbox-one/xbox-live/send-text-messages>.

<sup>40</sup> MICROSOFT, Transcribe voice Messages on Xbox One (2016), <https://support.xbox.com/en-US/xbox-one/console/transcribe-voice-messages-on-xbox-one>.

<sup>41</sup> MICROSOFT, How to Customize an Xbox One Wireless Controller with the Xbox Accessories App (2016), <http://support.xbox.com/en-US/xbox-one/accessories/customize-standard-controller-with-accessories-app>.

<sup>42</sup> MICROSOFT, Use the Xbox Accessories App to Configure Your Xbox Elite Wireless Controller (2016), <http://support.xbox.com/en-US/xbox-one/accessories/use-accessories-app-configure-elite-controller>.

<sup>43</sup> See, e.g., Jessica Conditt, *Xbox Elite Controller Opens Up Games to People with Disabilities*, ENGADGET, (Oct. 14, 2016), <https://www.engadget.com/2016/10/14/xbox-elite-ablegamers-disabilities-controllers/>.

Similarly, as the Bureau has recognized, Sony began including significant accessibility enhancements to the PlayStation 4 console with the release of firmware update 2.50 last year.<sup>44</sup> Since that time, subsequent firmware upgrades to the PlayStation 4 have introduced additional accessibility improvements, including the ability to control the speed of automatic scrolling text, expanding existing speech-to-text capabilities to work with new features, and adjustments to improve access to accessibility settings.<sup>45</sup> For example, in addition to the ability to add accessibility settings to the “quick menu” for faster and easier access, firmware update 3.0 (released last fall) made it possible for users to navigate to accessibility settings in a prominent position near the top of the settings menu.<sup>46</sup> The most recent version of PlayStation firmware (4.0, released last month) adds additional accessibility features which allow gamers with visual disabilities to customize the appearance of menus. These include a series of color themes which may assist individuals with color vision deficiencies, and a new Text Drop Shadow option under the console’s “Themes” settings which may help improve legibility for individuals with low vision.<sup>47</sup> This firmware release also enables customization of the order in which features are presented in the Quick Menu, allowing users to move available accessibility options to the very top of their Quick Menu for even easier access if they so choose.<sup>48</sup>

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<sup>44</sup> See *2015 Waiver Order* ¶ 19 n.77 (citing 2015 Petition at 16-17).

<sup>45</sup> John Koller, *PS4 System Software Update 3.00 Out 9/30, Take a Visual Tour*, PLAYSTATION BLOG (Sept. 29, 2015), <http://blog.us.playstation.com/2015/09/29/ps4-system-software-update-3-00-out-930-take-a-visual-tour/>.

<sup>46</sup> See *id.*

<sup>47</sup> See SONY INTERACTIVE ENTERTAINMENT INC., *PlayStation 4 User’s Guide, Themes* (2016), <http://manuals.playstation.net/document/en/ps4/settings/themes.html>.

<sup>48</sup> See Matthew Groizard, *How the New PS4 ‘Quick Menu’ Places Everything You Need at the Touch of a Button*, PLAYSTATION BLOG (Sept. 14, 2016), <https://blog.eu.playstation.com/2016/09/14/how-the-new-ps4-quick-menu-places-everything-you-need-at-the-touch-of-a-button/>.

As the IGDA Game Accessibility SIG notes, moreover, “[a]ccessibility in games themselves has continued to improve...” in the past year.<sup>49</sup> This is in no small part because “[h]ow accessibility is approached has also improved,” including video game developers “publicly asking their community for accessibility input during development.”<sup>50</sup>

For example, Sony Interactive Entertainment worked with the creator of the Disabled Accessibility for Gaming Entertainment Rating System to explore accessibility challenges in playing the action adventure game *Uncharted 4*.<sup>51</sup> In addition, Electronic Arts is now using Twitter to solicit accessibility feedback for its *Madden* football sports video game and other titles.<sup>52</sup> Microsoft operates an online forum dedicated to soliciting feedback and suggestions on how to make consumers’ gaming experiences more accessible, including the “type of support you want in the specific ... games you request (narrator, magnifier, high contrast, larger text, etc.).”<sup>53</sup> And at this year’s Electronic Entertainment Expo (“E3”), Sony Interactive Entertainment specifically designated a demo station in its exhibit space as “Accessible,” reserving it for users with disabilities to experience demos. In fact, as the IGDA Game Accessibility SIG explains, the past year has been “a landmark year in many ways” for gaming

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<sup>49</sup> GA-SIG Roundtable Wrap Up.

<sup>50</sup> *Id.*

<sup>51</sup> See generally PlayStation, *UNCHARTED 4: A Thief's End - A New Adventure in Video Game Accessibility Video*, YOUTUBE (May 19, 2016), [https://www.youtube.com/watch?v=Ls\\_CD4mB42s](https://www.youtube.com/watch?v=Ls_CD4mB42s) (“*Uncharted 4 Accessibility Video*”).

<sup>52</sup> Karen Stevens (@ea\_accessible), TWITTER, [https://twitter.com/ea\\_accessible](https://twitter.com/ea_accessible).

<sup>53</sup> MICROSOFT, Xbox, Forums, Ease of Access (2016), <https://xbox.uservoice.com/forums/335163-ease-of-access>. Microsoft also hosts an annual Ability Summit that brings together engineers, designers and other tech pros with people with disabilities from both inside and outside Microsoft to advance accessible technology and promote disability inclusion. See, e.g., MICROSOFT, Microsoft News Center, Microsoft Ability Summit Aims to Bring ‘Next Wave’ of Technology to Empower People with Disabilities, <http://news.microsoft.com/features/microsoft-ability-summit-aims-to-bring-next-wave-of-technology-to-empower-people-with-disabilities/>; Devan Vaughn, *Fostering Unique Perspectives: Microsoft’s Commitment to Inclusive Hiring*, MICROSOFT JOBS BLOG, <http://blogs.microsoft.com/jobs/international/fosteringuniqueperspectives/>.

accessibility, with five accessibility sessions at the 2016 Gaming Developers Conference in San Francisco setting attendance records, and six separate gaming sessions at the 2016 CSUN accessibility conference.<sup>54</sup>

As a result of this engagement, additional accessibility advancements for video game software are already becoming available, including for many of the industry's highly-regarded and best-selling game franchises. Indeed, popular gaming review site Gamecritics.com announced earlier this year that, going forward, all of its game reviews would include accessibility as a review criterion.<sup>55</sup> ESA members have worked hard over the past year to introduce features intended to improve the gaming experience for individuals with a range of disabilities.

***Gamers who are deaf or hard of hearing.*** Gamers who are deaf or hard of hearing have noted that audio cues often play an important role in accomplishing game objectives, and have stressed the benefits of providing these cues in non-audio forms.<sup>56</sup> Recently-released game titles are increasingly incorporating these features. For example, for *Madden NFL 17*, while “the game’s audio enhances the experience ... the title features visual and tactile cues that allow it to be enjoyed by deaf and hard-of-hearing gamers” as well.<sup>57</sup> Action and adventure games, such as Bethesda Softworks’ *Fallout 4* and Square Enix’s *Hitman*, now include visual cues for detecting

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<sup>54</sup> GA-SIG Roundtable Wrap Up. For example, Sony Interactive Entertainment attended CSUN 2016 specifically to have another point of interaction with the disability community and individuals working on assistive technology solutions.

<sup>55</sup> Brad Gallaway, *Gamecritics Reviews: Enhanced Information on Accessibility*, GAMECRITICS (Feb. 17, 2016), <http://gamecritics.com/brad-gallaway/gamecritics-reviews-enhanced-information-on-accessibility/>.

<sup>56</sup> See, e.g., TELECOMMUNICATIONS FOR THE DEAF AND HARD OF HEARING, INC., Thanks to The Paciello Group, TDI Meets with Entertainment Software Association and Sony Interactive Entertainment (Oct. 5, 2016), <https://tdiforaccess.org/2016/10/gaming-esa-sony/>.

<sup>57</sup> Brad Bortone, *Madden NFL 17 Review*, GAMECRITICS (Sept. 16, 2016), <http://gamecritics.com/brad-bortone/madden-nfl-17-review/>.

enemies and other in-game threats.<sup>58</sup> As one review of *Hitman* explains, the game's heads up display provides "a smooth experience for hard of hearing audiences."<sup>59</sup> Similarly, Ubisoft's open-world combat roleplaying game *Tom Clancy's The Division* offers "a gameplay option that focuses on visuals," which for gamers who are deaf or hard of hearing helps "result[] in playing a video game, not fighting it."<sup>60</sup> And Sony's *MLB 15: The Show* baseball game, which this past January earned AbleGamers' award for Mainstream Accessible Game of the Year, does not rely on audio cues to play the game at all.<sup>61</sup>

Moreover, game titles released in the past year have continued to feature subtitles for cinematics (the short videos that play between missions) and/or story-related character dialogue provided during game play. Examples of current and upcoming releases that feature subtitled content include Microsoft's combat game *Gears of War 4* and racing game *Forza Horizon 3*,<sup>62</sup> the stealth adventure game *Hitman*,<sup>63</sup> Warner Brothers' graphic novel adventure game *Batman: The Telltale Series—Episode 1: Realm of Shadows*,<sup>64</sup> *Tom Clancy's The Division*,<sup>65</sup> and Sony's

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<sup>58</sup> See, e.g., Corey Motley, *Fallout 4: Far Harbor Review*, GAMECRITICS (June 25, 2016), <http://gamecritics.com/corey-motley/fallout-4-far-harbor-review/> ("Fallout 4 GameCritics Review"); Corey Motley, *Hitman: Club 27 Review*, GAMECRITICS (Sept. 8, 2016), <http://gamecritics.com/corey-motley/hitman-club-27-review/> ("Hitman GameCritics Review").

<sup>59</sup> *Hitman* GameCritics Review.

<sup>60</sup> GAMEINFORMER, A Deaf Gamer in the Division (Mar. 7, 2016), [http://origin-www.gameinformer.com/blogs/members/b/letmegettoacheckpoint\\_blog/archive/2016/03/07/a-deaf-gamer-in-the-division.aspx](http://origin-www.gameinformer.com/blogs/members/b/letmegettoacheckpoint_blog/archive/2016/03/07/a-deaf-gamer-in-the-division.aspx).

<sup>61</sup> See THE ABLEGAMERS FOUNDATION, Announcing the AbleGamers 2015 Accessible Game of the Year (Jan. 21, 2016), <http://www.ablegamers.com/announcing-the-ablegamers-2015-accessible-game-of-the-year/> ("AbleGamers *MLB 15: The Show* Announcement").

<sup>62</sup> MICROSOFT STUDIOS, Forza Motorsport Forums, *Forza Horizon 3* (2016), [http://forums.forzamotorsport.net/turn10\\_postst67387\\_Forza-Horizon-3---Game-Guide---FAQ.aspx](http://forums.forzamotorsport.net/turn10_postst67387_Forza-Horizon-3---Game-Guide---FAQ.aspx).

<sup>63</sup> *Hitman* Gamecritics Review.

<sup>64</sup> Marcus Lawrence, *Batman: The Telltale Series – Episode 1: Realm of Shadows Review*, GAMECRITICS (Sept. 24, 2016), <http://gamecritics.com/marcus-lawrence/batman-the-telltale-series-episode-1-realm-of-shadows-review/>.

<sup>65</sup> Brad Gallaway, *Tom Clancy's The Division Review*, GAMECRITICS (Mar. 31, 2016), <http://gamecritics.com/brad-gallaway/tom-clancys-the-division-review/> ("The Division GameCritics Review").

3D platform game *Ratchet and Clank*.<sup>66</sup> *Fallout 4* similarly includes subtitles for character dialogue, and allows players to enable a “Dialogue Camera” to identify the speaker during conversations that players have with in-game characters.<sup>67</sup> The action adventure game *Rise of the Tomb Raider* also includes subtitle support, as well as “an option to make [subtitles] color-coded for each character to more easily determine who’s speaking.”<sup>68</sup> Despite how commonplace subtitling has now become in gaming, however, ESA members recognize that additional advances could improve the gaming experience.

***Gamers who are blind or have low vision.*** ESA members have also worked over the past year to improve accessibility for gamers who are blind or have low vision. First, numerous upcoming and recently-released games include features intended to address game play challenges for individuals with color vision deficiency. These include, for example, Electronic Arts’ action shooter game *Star Wars Battlefront*,<sup>69</sup> the platform-puzzle game *Hue*, which has core mechanics based entirely around color matching,<sup>70</sup> *Gears of War 4*,<sup>71</sup> *Madden NFL 17*,<sup>72</sup>

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<sup>66</sup> D.A.G.E.R. SYSTEM, *Disability Review—Ratchet and Clank* (July 28, 2016), <http://www.dagersystem.com/all-review-list/disability-review-ratchet-and-clank/>.

<sup>67</sup> Joshua Straub and Megan Hammond, *Disability Review—Fallout 4*, D.A.G.E.R. SYSTEM (Jan. 29, 2016), <http://www.dagersystem.com/all-review-list/disability-review-fallout-4/>.

<sup>68</sup> Mike Suskie, *Rise of the Tomb Raider Review*, GAMECRITICS (Nov. 26, 2015), <http://gamecritics.com/mike-suskie/rise-of-the-tomb-raider-review/>.

<sup>69</sup> See REDDIT, Jelman21, *Battlefront has some really nice colorblind profiles*, [https://www.reddit.com/r/StarWarsBattlefront/comments/3nzc9t/battlefront\\_has\\_some\\_really\\_nice\\_colourblind/?st=iu2spva0&sh=ab657d4a](https://www.reddit.com/r/StarWarsBattlefront/comments/3nzc9t/battlefront_has_some_really_nice_colourblind/?st=iu2spva0&sh=ab657d4a).

<sup>70</sup> See Henry Hoffman, *Vibrant Puzzler Hue Coming Soon to PS4, PS Vita*, PLAYSTATION BLOG (Aug. 3, 2016), <http://blog.us.playstation.com/2016/08/03/vibrant-puzzler-hue-coming-soon-to-ps4-ps-vita/>.

<sup>71</sup> See MICROSOFT STUDIOS, The Coalition Developer Blog, *Developer Blog 2: The Evolution of Gears 4 Versus* (2016), <https://gearsofwar.com/en-us/developerblog/2/gears4versus> (describing “new Color Blind accessibility options. . .”).

<sup>72</sup> See EA SPORTS, *Madden NFL 17 Accessibility Improvements* (June 10, 2016), <https://www.easports.com/madden-nfl/news/2016/madden-17-accessibility> (“*Madden NFL 17 Accessibility Improvements*”).



and Tom Clancy's *The Division*.<sup>73</sup>

In addition, recently released titles have included other features intended to improve access for individuals with vision disabilities, including brightness and/or contrast adjustments,<sup>74</sup> the ability to enlarge graphics representing certain objects or controls in the game,<sup>75</sup> and zoom functionality for game play items such as maps.<sup>76</sup> Finally, just as non-audio cues can assist individuals with hearing loss, developers are exploring ways of implementing unique sound cues that signal information for individuals with visual disabilities. For example, a recent update to the Microsoft Studios' fighting game *Killer Instinct* included several unique sound cues specifically for blind gamers.<sup>77</sup> These features have enabled blind gamers to play competitively against sighted players, including at the highest level of online competition.<sup>78</sup>

Some games and game platforms offer both voice and text chat, which can help gamers for whom one modality or the other is not optimal. Both the Xbox One and the PlayStation 4 allow players to engage in voice or text chat with friends via the platform-level chat feature. Some games offer dual-mode chat as well. Recent examples include Psyonix's "vehicular soccer" game *Rocket League*, which offers text, voice, and predefined phrases on each platform on which it operates, and which recently received an update to include a much wider range of

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<sup>73</sup> *The Division* GameCritics Review.

<sup>74</sup> See, e.g., Colin Campbell, *Forza Horizon 3 Review*, POLYGON (Sept. 20, 2016), <http://www.polygon.com/2016/9/20/12984906/forza-horizon-3-review>; *Madden NFL 17 Accessibility Improvements*.

<sup>75</sup> *Madden NFL 17 Accessibility Improvements*.

<sup>76</sup> See, e.g., Stephen Totilo, *2015's Best In-Game Map? Assassin's Creed Syndicate*, KOTAKU (Dec. 30, 2015), <http://thebests.kotaku.com/2015s-best-in-game-map-assassins-creed-syndicate-1750351968/>.

<sup>77</sup> Wesley Yin-Poole, *Meet the Blind Gamer With a Killer Instinct*, EUROGAMER.NET (Mar. 29, 2016), <http://www.eurogamer.net/articles/2016-03-29-meet-the-blind-gamer-with-a-killer-instinct>.

<sup>78</sup> See *id.*

configurable predefined phrases;<sup>79</sup> *Overwatch*, which offers text and voice chat on the PC;<sup>80</sup> *Tom Clancy's The Division*, which offers both text and proximity voice on the PC;<sup>81</sup> and *Gears of War 4*.

***Gamers with limited strength and reach.*** ESA members have also developed accessibility features for consumers with physical and motor skill limitations to help remove barriers to game interaction. For example, Sony recently introduced new accessibility features for its action/adventure game *Uncharted 4* in response to user feedback and in collaboration with both an accessibility specialist and gamers with disabilities.<sup>82</sup> These features include new approaches to implementing flexible game controls that make game play possible for individuals with limited dexterity.<sup>83</sup> *Uncharted 4* enables alternative button inputs to substitute for more complex controller combinations, such as simultaneous use of controller sticks and repetitive button presses, needed to perform objectives within the game. The game also includes enhancements to improve visibility from various camera angles.<sup>84</sup> In addition, *MLB 15: The Show* includes an “adaptive difficulty” setting that changes the difficulty of game play dynamically based on the user’s abilities.<sup>85</sup> Finally, several recently-released titles include

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<sup>79</sup> See Kyle Lemmon, *We’re Expanding Your Quick Chat Options*, PSYONIX, INC. (May 18, 2016), <https://www.rocketleaguegame.com/news/we-re-expanding-your-quick-chat-options/>.

<sup>80</sup> Jessica Conditt, *Blizzard Rolls Out Battle.net Voice Chat Starting with ‘Overwatch,’* ENGADGET (Oct. 23, 2015), <https://www.engadget.com/2015/10/23/blizzard-voice-chat-battle-net-overwatch-beta/>.

<sup>81</sup> Ben Barrett, *The Division Will Have a “Classic MMO Chat System” to Aid Player Communication*, PC GAMES NEWS (2016), <http://www.pcgamesn.com/the-division/the-division-will-have-a-classic-mmo-chat-system-to-aid-player-communication>.

<sup>82</sup> *Uncharted 4* Accessibility Video.

<sup>83</sup> See *id.*

<sup>84</sup> *Id.*

<sup>85</sup> AbleGamers *MLB 15: The Show* Announcement.

controller customization options and/or features such as auto-targeting, including *Gears of War 4*, *Hitman*, *Tom Clancy's The Division*, and *Fallout 4*.<sup>86</sup>

As these ongoing efforts suggest, the gaming industry has made meaningful progress on accessibility since the Bureau granted the existing waiver for video game software.

### **III. THE COMMISSION SHOULD EXTEND THE CURRENT WAIVER FOR VIDEO GAME SOFTWARE.**

Notwithstanding the progress made during the past year, video games continue to present significant technical challenges and a unique—and difficult—environment in which to deliver accessibility solutions for ACS. Accordingly, the Commission should extend the current waiver for video game software for twelve months. Doing so will serve the public interest by (1) providing an environment in which ESA member companies continue to innovate and experiment with accessibility solutions by reducing regulatory uncertainty during this development, (2) allowing publishers to bring games currently under development that include ACS components to market to compete with games that do not include ACS, and (3) enabling the industry to continue to implement accessibility solutions, including those that may grow out of outreach to and feedback from members of the disability community.

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<sup>86</sup> See, e.g., *Hitman* GameCritics Review (inversion of X and Y axes and autotargeting); *Fallout 4* GameCritics Review (look sensitivity and button remapping); *The Division* GameCritics Review (remappable controls and stick sensitivity).

**A. Applying Assistive Technologies to Video Game Software ACS Continues to Present Substantial Technical Challenges.**

In its *2015 Waiver Order*, the Bureau concluded that “[t]he record demonstrates ... that eliminating accessibility barriers to ACS features and functions in video game software remains challenging.”<sup>87</sup> As ESA and assistive technology expert Mike Paciello have explained, this is so for several reasons.

First, video games are fundamentally unlike most other types of software, and typically involve the execution of specialized code that maximizes the use of computer processing capacity to render visual elements on the screen.<sup>88</sup> These differences constrain the industry’s ability to re-use existing accessibility technologies developed for other, less resource-intensive environments, including general-purpose assistive technologies such as screen-readers developed for PCs.<sup>89</sup> Indeed, because many games effectively run in a self-contained environment that is conceptually similar to an operating system within the host hardware’s operating system, it is often challenging to create platform-level technologies—including assistive technologies—for game consoles that could be readily re-purposed in games themselves.<sup>90</sup>

Second, in-game environments are often fast-paced and frequently involve multiple participants communicating at the same time.<sup>91</sup> These considerations have limited the

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<sup>87</sup> *2015 Waiver Order* ¶ 20.

<sup>88</sup> *See* 2015 Petition at 11-14.

<sup>89</sup> *Id.* As Mr. Paciello explains, “[a]ccessibility features embedded in PC and mobile operating systems (‘OS’) are not typically designed to be used within the specialized video game environment. These OS accessibility features are often incompatible with video game programming techniques or, if they can be incorporated, severely diminish performance. For example, screen readers used on PCs may not work well with computer games, which often are optimized for a full screen experience.” Declaration of Mike Paciello ¶ 5(c), attached as Exhibit B to 2015 Petition (“2015 Paciello Declaration”).

<sup>90</sup> Declaration of Mike Paciello ¶ 7, attached as Exhibit B hereto (“2016 Paciello Declaration”).

<sup>91</sup> *See 2015 Waiver Order* ¶ 13 (citing 2015 Petition at 11-13, 2015 Paciello Declaration ¶ 5 (d)).

practicality of using emergent technologies, such as speech-to-text.<sup>92</sup> ESA member companies are evaluating speech-to-text transcription functions that would provide further participation options for gamers who are hard of hearing, but the characteristics of multiplayer interactive gaming environments pose unique and significant challenges.

For example, Microsoft is actively pursuing speech-to-text transcription functionality, also known as automated speech recognition, for in-game audio chat, having already invested considerable time and effort to develop these technologies.<sup>93</sup> Years of work at Microsoft have culminated in Skype Translator, which utilizes speech recognition services to transcribe conversations within Skype's consumer offering, and has been recognized as having the potential to facilitate communication for people who are hard of hearing.<sup>94</sup> However, incorporating speech-to-text technologies into a viable product has been a substantial undertaking even in software whose primary purpose is communications: Skype Translator was only recently integrated into the consumer video communications product, where it is still in preview mode.<sup>95</sup>

Microsoft is now working to prototype speech-to-text in select gaming experiences, which entails leveraging speech recognition technology in the far more complicated online gaming environment. Natural, conversational human-to-human speech is the most challenging scenario for speech recognition services.<sup>96</sup> In contrast to discrete commands or queries made to

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<sup>92</sup> See *id.*; see also 2016 Paciello Declaration ¶ 9.

<sup>93</sup> *Microsoft demos breakthrough in real-time translated conversations*, OFFICIAL MICROSOFT BLOG (May 27, 2014), <http://blogs.microsoft.com/blog/2014/05/27/microsoft-demos-breakthrough-in-real-time-translated-conversations/#sm.0000st3tqd3lwfoxb21otqsoorru>.

<sup>94</sup> Skype, *Skype Translator Empowering People with Hearing Loss*, YOUTUBE (June 18, 2015), <https://www.youtube.com/watch?v=QH3zpsQma9c>.

<sup>95</sup> SKYPE, *Skype Translator* (2016), <https://www.skype.com/en/features/skype-translator/>.

<sup>96</sup> See Jesse Jarnow, *Why Our Crazy-Smart AI Still Sucks at Transcribing Speech*, WIRED (Apr. 8, 2016), <https://www.wired.com/2016/04/long-form-voice-transcription/> ("Wired AI Voice Transcription"); 2016 Paciello Declaration ¶ 9(a).

digital assistants—such as asking Cortana “what is the weather?” or “where is the closest grocery store?”—conversational speech tends to be much more disfluent, contain many pauses, interruptions and restarts, and generally has much longer utterances.<sup>97</sup> An individual might begin one thought, pause, then switch topics altogether, and tend to be less careful about pronouncing words, so “I don’t know” becomes “I dunno,” and “I’m going to” becomes “I’m gonna.” Gaming augments these factors: people playing video games are reacting to actions in the game resulting in increased disfluency, and engaging in emotional speech such as yelling and speaking faster than normal, all of which alters the speech in ways that make it harder to recognize, thereby reducing transcription accuracy.<sup>98</sup>

Typical environmental gaming conditions, such as people talking over each other, music playing in the background, talking while eating, and varying acoustic headset quality and distance from microphones, also hamper accurate automated speech recognition.<sup>99</sup> Importantly, gamers often use game-specific terms or slang in addition to more common phrases.<sup>100</sup> And the more speakers involved in any given chat, the greater the potential for any of these issues to be present.<sup>101</sup> Indeed, as IBM Research—which developed the Watson computing system that famously competed on the game show *Jeopardy!*—has explained, “[u]nderstanding speech in the

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<sup>97</sup> See Wired AI Voice Transcription; 2016 Paciello Declaration ¶ 9(a).

<sup>98</sup> See 2016 Paciello Declaration ¶ 9(b); Wired AI Voice Transcription (explaining the difficulties of transcribing everyday human conversation). See also Daniel Palacios-Alonso et al., *Spontaneous emotional speech recordings through a cooperative online video game*, CENTRO DE TECNOLOGÍA BIOMÉDICA (2015), [http://ceur-ws.org/Vol-1394/paper\\_12.pdf](http://ceur-ws.org/Vol-1394/paper_12.pdf).

<sup>99</sup> 2016 Paciello Declaration ¶ 9(c).

<sup>100</sup> See *id.* For example, Game-specific terms might include “Noob” (new player), “Moba” (multiplayer online battle arena), “Boni” (bonus), “Grogard” (grouchy longtime player), and “Minmei” (a useless character). Non-standard language can also include vernacular specific to a particular game or gaming experience, for example, names of in-game maps (*e.g.*, “SoroSuub Centroplex”), shorthand terms gamers develop for map locations (referred to as callouts, *e.g.*, “I’m getting sniped by perch”), weapon names (*e.g.*, “I’ve equipped Gor’gah, High Blade of the Gorians”), and gamertags (names that gamers select for themselves to be known as while playing games or logged into Xbox Live).

<sup>101</sup> See *id.* ¶ 9(d).

presence of multiple talkers is one of the most challenging problems in automatic speech recognition.”<sup>102</sup>

Another challenge encountered by the industry is that the inherent lag time for transcribing audio matters far more in the game context than in non-game conversations. This is because players are often telling each other to react to other players’ actions in real time—when even very minor delays can mean the difference between succeeding or failing to accomplish a game objective.<sup>103</sup> For example, in a multiplayer combat game, players may warn teammates about others trying to attack them. If the speech recognition system waits until a given chat participant is done speaking to present the recognition result (which increases accuracy), then the text recipient will not see what was said until after the other person is done speaking—which could be too late to avoid the undesired outcome.<sup>104</sup> Trying to offer results roughly after each word is spoken could potentially reduce this lag, but can also result in inaccuracies and other “noise” in the chat transcription as intermediate results might change based on subsequently recognized words.<sup>105</sup>

Moreover, game developers implement ACS in a variety of ways, including custom implementations of text and voice communications capabilities.<sup>106</sup> This lack of uniformity in the gaming communications ecosystem presents additional challenges. While some types of game

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<sup>102</sup> See IBM RESEARCH, *Multi-talker Speech Separation and Recognition*, [http://researcher.watson.ibm.com/researcher/view\\_group.php?id=2819](http://researcher.watson.ibm.com/researcher/view_group.php?id=2819).

<sup>103</sup> See Matthew W.G. Dye, et al., *Increasing Speed of Processing with Action Video Games* at 1, NIH, CURRENT DIRECTIONS IN PSYCHOLOGICAL SCIENCE (Dec. 2009), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2871325/pdf/nihms155407.pdf> (explaining that action video games require rapid processing and incredibly fast decisions).

<sup>104</sup> See Halo, *The Finals - Halo World Championship 2016*, YOUTUBE (Mar. 22, 2016) (footage conveys the speed at which games are played and gamers are talking), <https://www.youtube.com/watch?v=DuL9AossV6E> (view from the 42:36 mark to 44:22).

<sup>105</sup> See Wired AI Voice Transcription; 2016 Paciello Declaration ¶ 9(d).

<sup>106</sup> 2015 Petition at 13.

play are more suited to text-based chat (*e.g.*, a trading room with numerous participants describing their wares), others are more suited to voice or predefined messages (*e.g.*, a first-person perspective combat game).<sup>107</sup> Indeed, even within a single game platform there can be variance in how in-game chat is implemented. Some publishers create their own custom software and networks, while others may rely upon backend services provided by an underlying platform.<sup>108</sup> Thus, “[t]he best accessibility solution for a particular game may depend on the genre of the game, the on-screen layout of the game, or other game-by-game factors.”<sup>109</sup> For these reasons, existing assistive technologies are of limited use, and there is not a single, rapid solution that video game developers can repurpose to address ACS accessibility across a large variety of games.<sup>110</sup>

Finally, many developers of creative assistive technologies have focused on solutions intended for core information and communications uses, as well as applications in fields such as employment and education.<sup>111</sup> Thus, these developers often prioritize these uses over entertainment markets such as video game software.<sup>112</sup>

As Mr. Paciello explains in his declaration attached as **Exhibit B**, each of these factors—many of which the Bureau cited last year in granting the existing waiver—continue to pose significant challenges for video game software accessibility today.<sup>113</sup>

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<sup>107</sup> *See id.*

<sup>108</sup> *Id.*

<sup>109</sup> *Id.*

<sup>110</sup> *See id.*; 2016 Paciello Declaration ¶ 8.

<sup>111</sup> 2015 Paciello Declaration ¶¶ 6-7.

<sup>112</sup> *See id.*

<sup>113</sup> 2016 Paciello Declaration ¶¶ 6-8, 10.



**B. Extending the Waiver for Video Game Software Serves the Public Interest.**

As with all waiver requests, the Commission must evaluate whether extending the ACS rule waiver for the video game software would serve the public interest.<sup>114</sup> An additional, limited extension for video game software meets this test.

In the *2015 Waiver Order*, the Bureau determined that it was “both reasonable and in the public interest to grant ESA’s [waiver] request” until January 1, 2017 because the Bureau expected that doing so would (1) “enable video game platform providers and video game publishers to continue exploring ACS accessibility solutions,” (2) “permit the industry to continue releasing innovative games, allow[ing] video games that have ACS to compete with other video game products,” and (3) “encourage the gaming industry to incorporate accessibility designed to benefit people with disabilities.”<sup>115</sup> These same reasons justify a modest extension of the current waiver for video game software.

First, as explained above, the unique characteristics of video game software often result in correspondingly unique challenges in developing accessibility solutions. Because existing accessibility approaches widely used in other contexts are not readily transferrable, additional time to continue to explore accessibility solutions will be immensely valuable. For example, notwithstanding the complexities of speech-to-text technologies in the gaming environment, Microsoft is interested in piloting this technology for use in in-game chat scenarios. Extending the existing waiver period will allow ESA member companies to continue to innovate and experiment by reducing regulatory uncertainty while development processes are taking place.

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<sup>114</sup> See *ACS Report and Order* ¶ 188.

<sup>115</sup> *2015 Waiver Order* ¶ 24.

In addition, as with the previous waiver grants the Commission found to be in the public interest, the waiver will permit industry to continue to release innovative games that include ACS features, and therefore would otherwise be subject to the Part 14 rules.<sup>116</sup> The industry is hard at work on numerous games with ACS components that are currently, or will soon be, in development. Extension of the waiver will enable member companies to bring these titles—many of which leverage recent industry progress on accessibility in other contexts—to market.

Finally, extending the waiver period will continue to encourage industry to pursue further experimentation with other accessibility features as it explores ACS solutions. In particular, doing so will permit ESA members to continue to focus on features incorporating existing feedback from outreach to the disability community members who are gamers, as well as continuing to solicit additional feedback going forward.

Much of this feedback the industry has received to date has focused on improvements that will help eliminate accessibility barriers to game play. When industry members have specifically sought feedback on ACS accessibility in games, respondents who are gamers themselves have explained that potential ACS solutions which degrade the core gaming experience are undesirable. This is consistent with academic findings that gamers with disabilities disfavor accessibility approaches which result in “accessible games that, by and large, are lower quality than their inaccessible ‘mainstream’ counterparts,” for the fundamental reason that “[d]isabled gamers ... want to play the same games as everyone else.”<sup>117</sup> Nevertheless, ESA’s recent experience indicates that enabling the industry to continue to work in parallel on game play accessibility could have a beneficial impact on ACS solution development as well.

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<sup>116</sup> *Id.*; 2012 Waiver Order ¶ 36.

<sup>117</sup> Eitan M. Glinert, *The Human Controller: Usability and Accessibility in Video Game Interfaces* at 11, MASS. INST. OF TECH., [https://gasig.files.wordpress.com/2011/10/the\\_human\\_controller.pdf](https://gasig.files.wordpress.com/2011/10/the_human_controller.pdf).

The current trajectory of voluntary uptake of accessibility for game play is fostering increasing understanding of both accessibility barriers and accessibility solutions in the highly specialized environment of video game software. Giving the gaming industry time to continue to explore feasible options for improved game play accessibility along with ACS solutions will help build on the momentum towards greater overall accessibility that the industry has witnessed in the past year, nurturing the industry's emerging culture of accessibility and bringing additional resources to bear on what are often challenging problems.

### CONCLUSION

The considerations that merited the grant of ESA's waiver request for video game software last year remain present today. Accordingly, extending the current waiver for an additional twelve months will continue to serve the public interest. By granting the requested relief, the Bureau will enable the industry to continue to offer non-primary ACS functionality in video game software while focusing on the best ways to explore features that can meet the unique challenges of advanced communications accessibility in video game environments.

Respectfully submitted,

A handwritten signature in dark ink that reads "SCOTT HARRIS". The signature is stylized with a large, sweeping "S" and a cursive "HARRIS".

---

Scott Blake Harris

S. Roberts Carter

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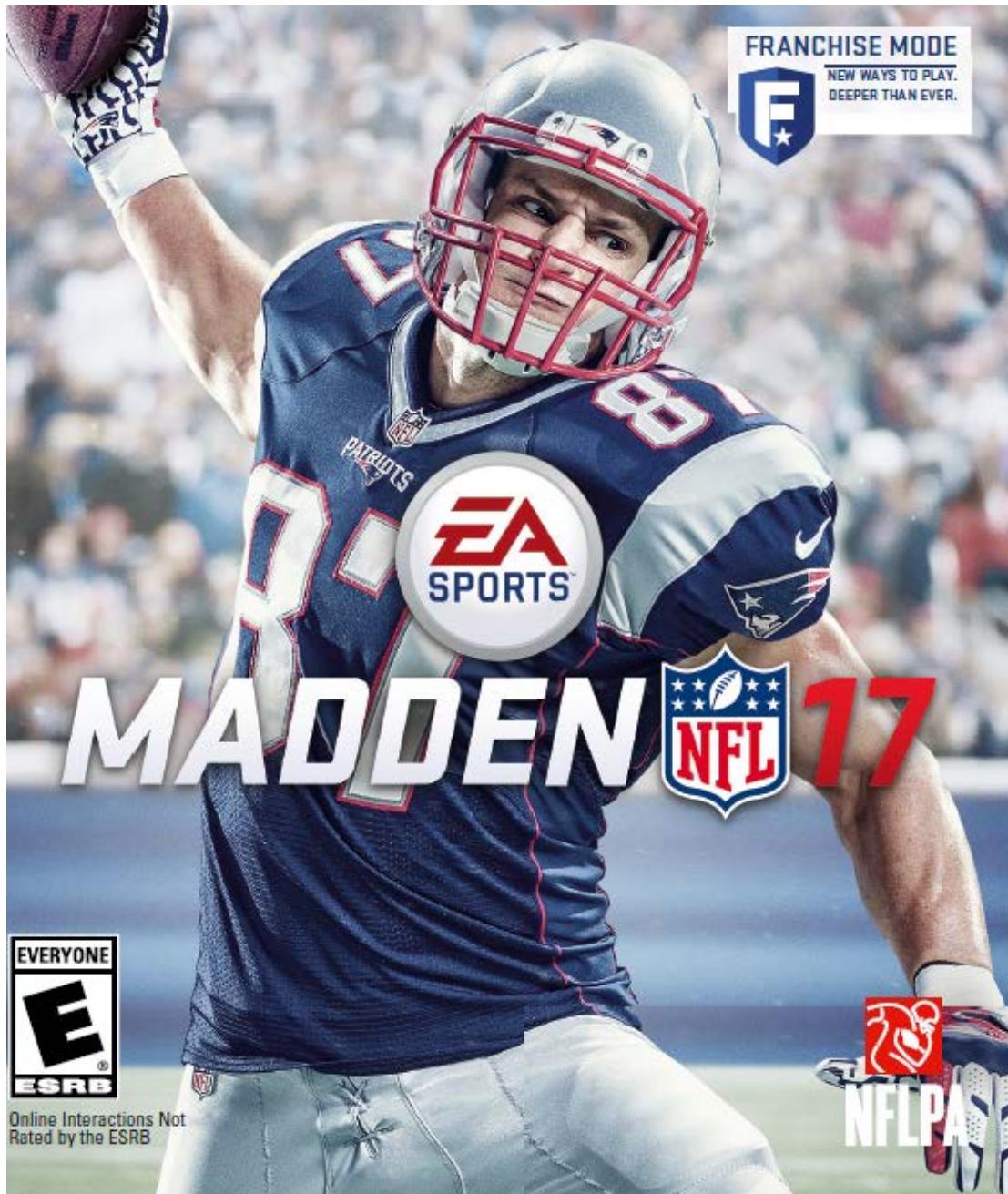
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October 18, 2016

*Counsel for the Entertainment  
Software Association*

# **Exhibit A**

**Exhibit A-1**  
*Madden NFL 17 Box Art (Xbox One)*



The front of the box for *Madden NFL 17* for Xbox One features an image of Rob Gronkowski of the New England Patriots in action. There is an ESRB rating of “E” for everyone, as well as a note explaining that online interactions are not rated by the ESRB. The front of the box also features logos for EA Sports and the NFLPA. The top right of the box advertises the game’s “Franchise Mode” with its logo, along with smaller text below it that reads, “New ways to play. Deeper than ever.”




**Exhibit A-1 Cont.**  
*Madden NFL 17 Box Art (Xbox One)*

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Co-op	2-4		Xbox SmartGlass™	optional	




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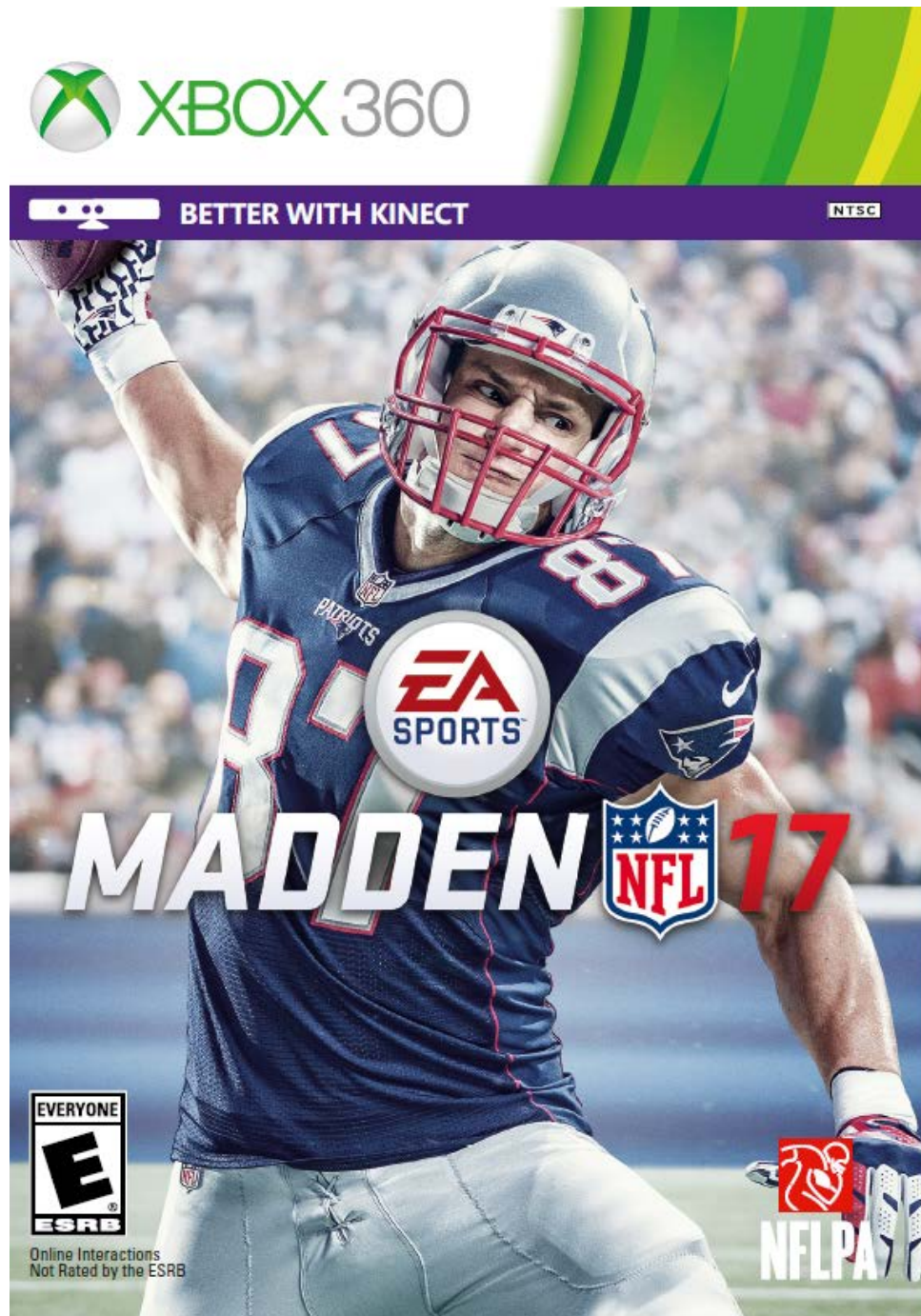


**WARNING** Read inside the case for information about photosensitive seizures and other important safety and health information.

The back of the box for *Madden NFL 17* for Xbox One features a large banner that reads “Take your team all the way,” as well as an action shot of two football players with text that states “Your big decisions put you at the center of your championship run.” Below that picture are three smaller images from the game, each with descriptions that highlight the game’s new features, such as “new and easy to access ball carrier moves,” and “an all-new commentary team.” The back of the box also includes smaller print describing system requirements, optional features, legal and health notices, the ESRB “E” for everyone logo, and various other company logos.

## Exhibit A-2

### *Madden NFL 17* Box Art (Xbox 360)



The box art for *Madden NFL 17* for Xbox 360 features a large image of Rob Gronkowski of the New England Patriots in action. At the top of the page is a large banner that reads “XBOX 360,” under which is a smaller banner that features the text “Better with Kinect” and the NTSC logo. The cover also features the logos of EA Sports, the NFLPA, and the ESRB “E” for everyone rating, along with a note that online interactions are not rated by the ESRB.



**Exhibit A-2 Cont.**  
*Madden NFL 17 Box Art (Xbox 360)*

**TAKE YOUR TEAM ALL THE WAY**



GET IMMERSSED IN YOUR MADDEN NFL 17 EXPERIENCE WITH AN INNOVATIVE, DYNAMIC COMMENTARY SYSTEM FOCUSED ON THE WAY YOU PLAY, PUTTING YOU AT THE CENTER OF YOUR CHAMPIONSHIP RUN.



RECREATE PIVOTAL MOMENTS FROM THE 2016 NFL SEASON AND GET REWARDED IN THE ALL-NEW TURNING POINTS FEATURE IN MADDEN NFL 17 ULTIMATE TEAM™.



COACH YOUR TEAM TO GLORY WITH ALL-NEW GAMEPLAY STRATEGIES, ALLOWING YOU TO SET UP PLAYS AND MAKE ADJUSTMENT ON THE FLY.

MADDEN NFL 17 XBOX 360 VERSION DOES NOT INCLUDE LIVE DOWNLOADABLE CONTENT FOR MADDEN NFL ULTIMATE TEAM INCLUDING LIVE EVENTS OR COMMENTARY UPDATES THROUGHOUT THE SEASON AND DOES NOT CONTAIN ALL GAME FEATURES AVAILABLE IN THE XBOX ONE VERSION. GAME PERFORMANCE VARIES BY PLATFORM. FOR MORE INFORMATION VISIT [WWW.EASPORTS.COM/MADDEN-NFL/NEWS/2016/MADDEN-17-GEN-3](http://WWW.EASPORTS.COM/MADDEN-NFL/NEWS/2016/MADDEN-17-GEN-3).  
LEARN MORE AT: [WWW.EASPORTS.COM/MADDEN-NFL](http://WWW.EASPORTS.COM/MADDEN-NFL)

BETTER WITH KINECT™ — Call your shots on offense and defense.

**XBOX LIVE** | The online service for Xbox 360 | Get an Xbox Live Gold membership to play games online with friends

XBOX 360 | players 1-4 | co-op 2-4 | 12 MB to save game | HDTV 720p/1080i/1080p | chatpad | in-game Dolby® Digital

XBOX LIVE | online multiplayer 2 | game-content download | leaderboards

KINECT | Kinect optional | players 1 | voice enabled | activity level: sitting | controller required

For use only with Xbox 360® entertainment systems with "NTSC" designation. Xbox 360 requires up to 256 MB for system updates and additional storage for some game features. Storage requirements subject to change. Unauthorized copying, reverse engineering, transmission, public performance, rental, pay for play, or circumvention of copy protection is strictly prohibited.

Xbox Live® System Requirements: In available games, paid subscription required for online multiplayer; some features and downloads require additional storage, hardware, and/or fees. Xbox Live is not available in all countries; see [www.xbox.com/live/countries](http://www.xbox.com/live/countries). Broadband internet service and 256 MB or greater required. A hard drive may be required for some features. Features and system requirements may change without notice. Subject to Terms of Use (at [www.xbox.com/live/terms/usage](http://www.xbox.com/live/terms/usage)). Under 13 requires parental consent. See [www.xbox.com/live](http://www.xbox.com/live) for full details.

Kinect® Sensor sold separately. See [www.xbox.com](http://www.xbox.com) for Kinect details.

Electronic Arts Inc. 209 Redwood Shores Parkway, Redwood City, CA 94065.

INTERNET CONNECTION, EA ACCOUNT AND ACCEPTANCE OF EA PRIVACY AND COOKIE POLICY AND TERMS OF SERVICE REQUIRED TO ACCESS ONLINE FEATURES. YOU MUST BE 13+ TO ACCESS ONLINE FEATURES. ADDITIONAL IN-GAME CONTENT MAY BE PURCHASED. EA PRIVACY AND COOKIE POLICY AND TERMS OF SERVICE CAN BE FOUND AT [www.ea.com](http://www.ea.com). MANDATORY CONTENT UPDATES MAY BE REQUIRED TO PLAY. CONTENT DOWNLOADS MAY INCUR BROADBAND USAGE CHARGES. EA MAY RETIRE ONLINE FEATURES AFTER 30 DAYS NOTICE POSTED ON [www.ea.com/live/updates](http://www.ea.com/live/updates). INCLUDES SOFTWARE THAT COLLECTS DATA ONLINE TO PROVIDE IN-GAME ADVERTISING. EA MAY PROVIDE CERTAIN INCREMENTAL CONTENT AND/OR UPDATES FOR NO ADDITIONAL CHARGE, IF AND WHEN AVAILABLE.

Separate cables may be required for HDTV and Dolby Digital. Sold separately. Confidential unpublished work. © 1999-2004 Electronic Arts Inc. EA, EA SPORTS, the EA SPORTS logo and Ultimate Team are trademarks of Electronic Arts Inc. The mark "John Madden" and the name, likeness and other attributes of John Madden reproduced on this product are trademarks or other intellectual property of Red Bear, Inc. or John Madden, are subject to license to Electronic Arts Inc., and may not be otherwise used in whole or in part without the prior written consent of Red Bear or John Madden. All rights reserved. Officially Licensed Product of NFL PLAYERS INC. and NFL PLAYERS.COM. NFL and NFL Shield are trademarks of NFL Properties LLC. Team names, logos, and uniforms are trademarks of the respective NFL Member Clubs. 368900901

**WARNING** Read inside the case for information about photosensitive seizures and other important safety and health information.

EVERYONE  
E  
ESRB

Search for more detailed rating summaries at [esrb.org](http://esrb.org)

SUPPORTS FAMILY SETTINGS

DOLBY DIGITAL

Microsoft

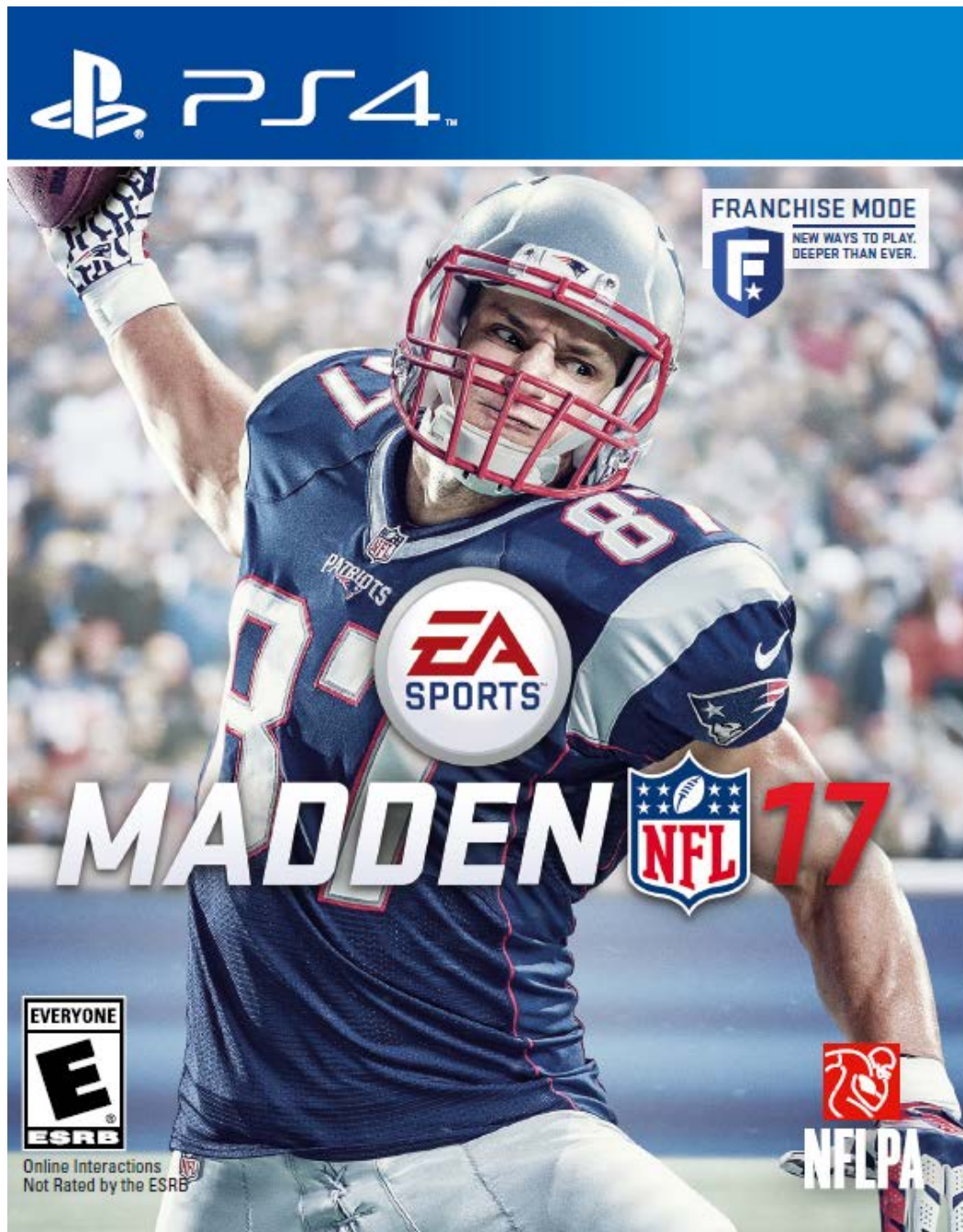
0 14633 36890 1

The back of the box art for *Madden NFL 17* for Xbox 360 features the words “Take your team all the way,” along with an action shot of Rob Gronkowski scoring a touchdown with text that reads “Get immersed in your *Madden NFL 17* experience with an innovative, dynamic commentary system focused on the way you play, putting you at the center of your championship run.” There are also two smaller images from the game, each with descriptions that highlight the game’s new features and game play strategies. The back of the box also includes smaller print describing system requirements, optional features, legal and health notices, the ESRB “E” for everyone logo, and various other company logos.



### Exhibit A-3

*Madden NFL 17* Box Art (PlayStation 4)



The front of the box for *Madden NFL 17* for the PlayStation 4 features an image of Rob Gronkowski of the New England Patriots in action. There is an ESRB rating of “E” for everyone, as well as a note explaining that online interactions are not rated by the ESRB. The front of the box also features logos for EA Sports and the NFLPA. The top right of the box advertises the game’s “Franchise Mode” with its logo, along with smaller text below it that reads, “New ways to play. Deeper than ever.”

**Exhibit A-3 Cont.**  
*Madden NFL 17 Box Art (PlayStation 4)*

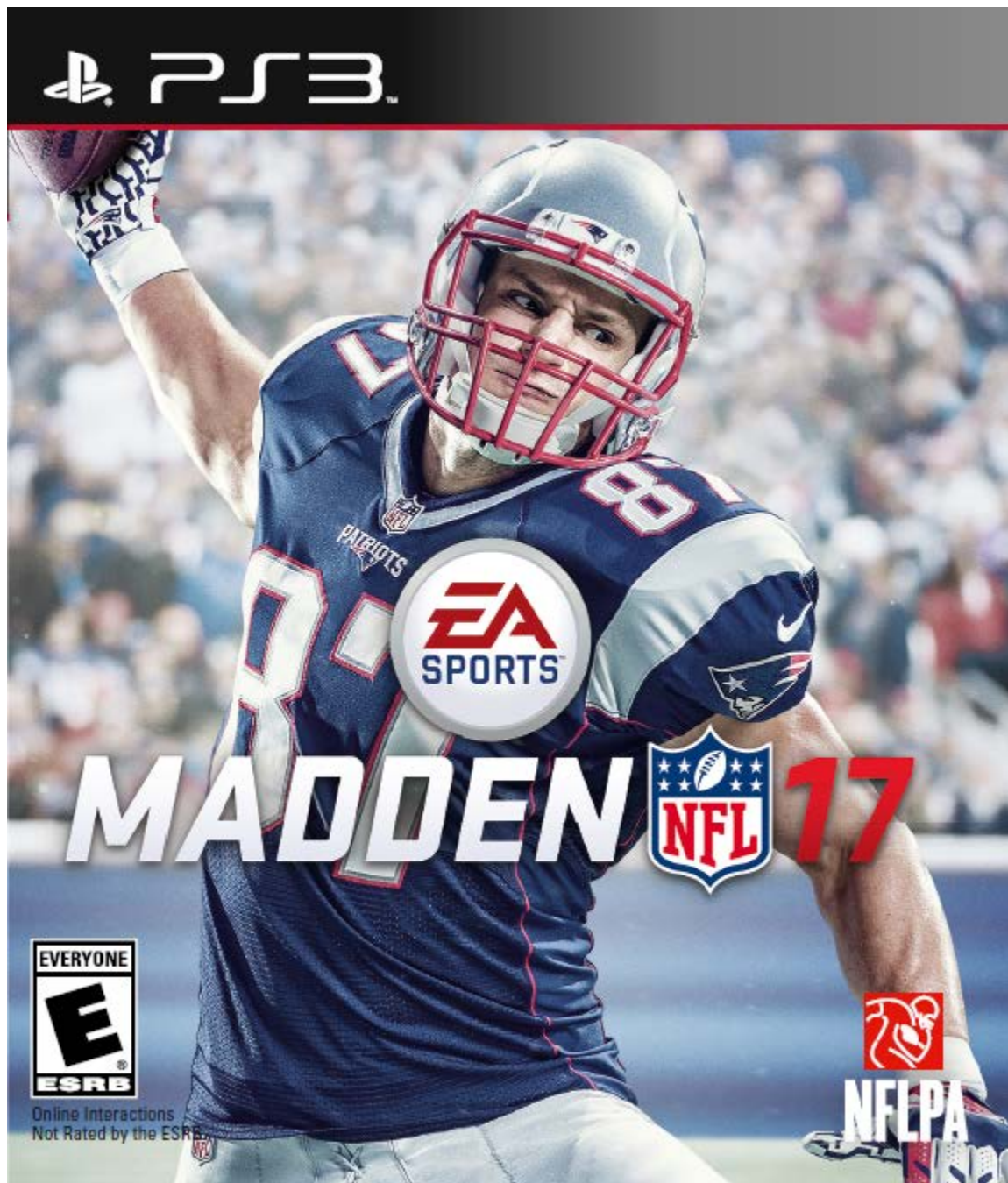


The back of the box for *Madden NFL 17* for the PlayStation 4 features a large banner that reads “Take your team all the way,” as well as an action shot of two football players with text that reads “Your big decisions put you at the center of your championship run.” Below that picture are three smaller images from the game, each with descriptions that highlight the game’s new features, such as “new and easy to access ball carrier moves,” and “an all-new commentary team.” The back of the box also includes smaller print describing system requirements, optional features, legal and health notices, the ESRB “E” for everyone logo, and various other company logos.



## Exhibit A-4

*Madden NFL 17* Box Art (PlayStation 3)



The front of the box for *Madden NFL 17* for the PlayStation 3 features an image of Rob Gronkowski of the New England Patriots in action. There is an ESRB rating of “E” for everyone, as well as a note explaining that online interactions are not rated by the ESRB. The front of the box also features logos for EA Sports and the NFLPA.

**Exhibit A-4 Cont.**  
*Madden NFL 17 Box Art (PlayStation 3)*



The back of the box for *Madden NFL 17* for the PlayStation 3 features the words “Take your team all the way,” along with an action shot of a football player scoring a touchdown with text that reads “Get immersed in your *Madden NFL 17* experience with an innovative, dynamic commentary system focused on the way you play, putting you at the center of your championship run.” There are also two smaller screen captures, each with descriptions that highlight the game’s new features and game play strategies. The back of the box also features smaller print describing system requirements, optional features, legal and health notices, the ESRB “E” for everyone logo, and various other company logos.

## Exhibit A-4 Cont.

Screenshot of *Madden NFL 17* Website Features Overview Page

Available at <https://www.easports.com/madden-nfl/news/2016/madden-nfl-17-features-overview>

**MADDEN**

FEATURES ▾

MUT REWARDS

NEWS

COMPETE ▾

COMMUNITY ▾


ULTIMATE TEAM

MOBILE ▾


Get Madden ▾

# MADDEN NFL 17 FEATURES OVERVIEW

POSTED MAY 12TH AT 6:00PM.



Three years ago we set out to transform gameplay with the desire to deliver new mechanics, authentic AI and accessibility. In Madden NFL 15 we started with making defense fun again, last year we helped you to dominate the air, and in Madden NFL 17 on Xbox One and Playstation®4 we address all three phases of the game on offense, defense, and special teams. Let's start with offense and the new Ball Carrier Controls.



We've added a tiered system to the types of special moves different players are able to pull off - depending on their attributes, ratings and speed. So now, expect your bigger bruising backs to be more effective with truck moves and stiff arms, while smaller, shiftier backs have more effective jukes and spins. Now don't worry if you're not a magician yet on the sticks. New Ball Carrier UI Prompts help teach moves available to you,

### RELATED ARTICLES

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#### 10 REASONS TO PLAY MADDEN NFL 17

In case you didn't already know...

[Read more](#)

#### THE MADDEN 17 HURRY UP

A weekly look at everything related to Madden NFL 17.

[Read more](#)

This screen capture of the *Madden NFL 17* website shows two images of in-game action underneath the headline “*Madden NFL 17* Features Overview.” The images are surrounded by text that describes the new features of the game such as “new Ball Carrier Controls.” Across the top of the page, there are options to navigate to different parts of the site as well as an option to “Get Madden.” The sidebar on the right side of the page allows users to read other news items about *Madden NFL 17* that have been recently posted, including “10 Reasons to Play *Madden NFL 17*” and various in-game leaderboards.



**Exhibit A-5**  
*FIFA 17* Box Art (Xbox One)



The front of the box for *FIFA 17* for Xbox One features an image of Marco Reus of Borussia Dortmund engaging in a match. There is an ESRB rating of “E” for everyone, as well as a note explaining that online interactions are not rated by the ESRB. The front of the box also features logos for EA Sports and the FIFA organization. There is a banner across the top of the box that indicates that the “Deluxe Edition” of the game includes up to \$60 of additional value. The bottom right of the box advertises that the game features “*FIFA 17: Ultimate Team*” and includes “Legends” that are only available on the Xbox platform. All text on the front of the box is in both English and Spanish.

# FIFA 17 Box Art (Xbox One)

[illegible]

The back of the box for *FIFA 17* for Xbox One features a box that includes a player in action with text that reads “Own every moment on the pitch.” Additionally, there is an image of a player staring towards the camera with text that indicates that the game is “Powered by Frostbite.” Across the top, there is a banner that says that the game includes up to 20 “Jumbo Premium Gold Packs.” The back of the box also includes smaller print describing system requirements, optional features, legal and health notices, the ESRB “E” for everyone logo, and various other company logos. All text on the back of the box is in both English and Spanish.



**Exhibit A-6**  
*FIFA 17* Sell Sheet



The sell sheet for *FIFA 17* shows four soccer players in match action. There is a banner across the top that notes that the sell sheet is for the “Deluxe Edition” of the game and there is a box in the center that encourages customers to “pre-order now” to get up to \$60 worth of jumbo premium gold packs as additional content. The EA Sports logo and the FIFA organization logo appear on the sell sheet. Customers are informed that the game will be available in Fall 2016.



## Exhibit A-7

Screenshot from the *FIFA 17* Website Features Page  
Available at <https://www.easports.com/fifa/features>



This screenshot of the *FIFA 17* website “Features” page displays a player from Real Madrid in action. Overlaid on a yellow background is text reading, “Take every opportunity. Set Piece Rewrite. From free kicks to penalties to corner kicks, inject personality and experience control from every dead ball situation.”

## Exhibit A-8

*Killer Instinct: Definitive Edition* Box Art (Xbox One)



The box art for Microsoft's *Killer Instinct: Definitive Edition* features a drawing depicting several of the game's characters in action. At the top of the box is a banner that reads "Xbox One Console Exclusive." There is also a logo of the ESRB rating of "M" for mature at the bottom left, with an explanation that online interactions are not rated by the ESRB.

**Exhibit A-8 Cont.**  
*Killer Instinct: Definitive Edition Box Art (Xbox One)*

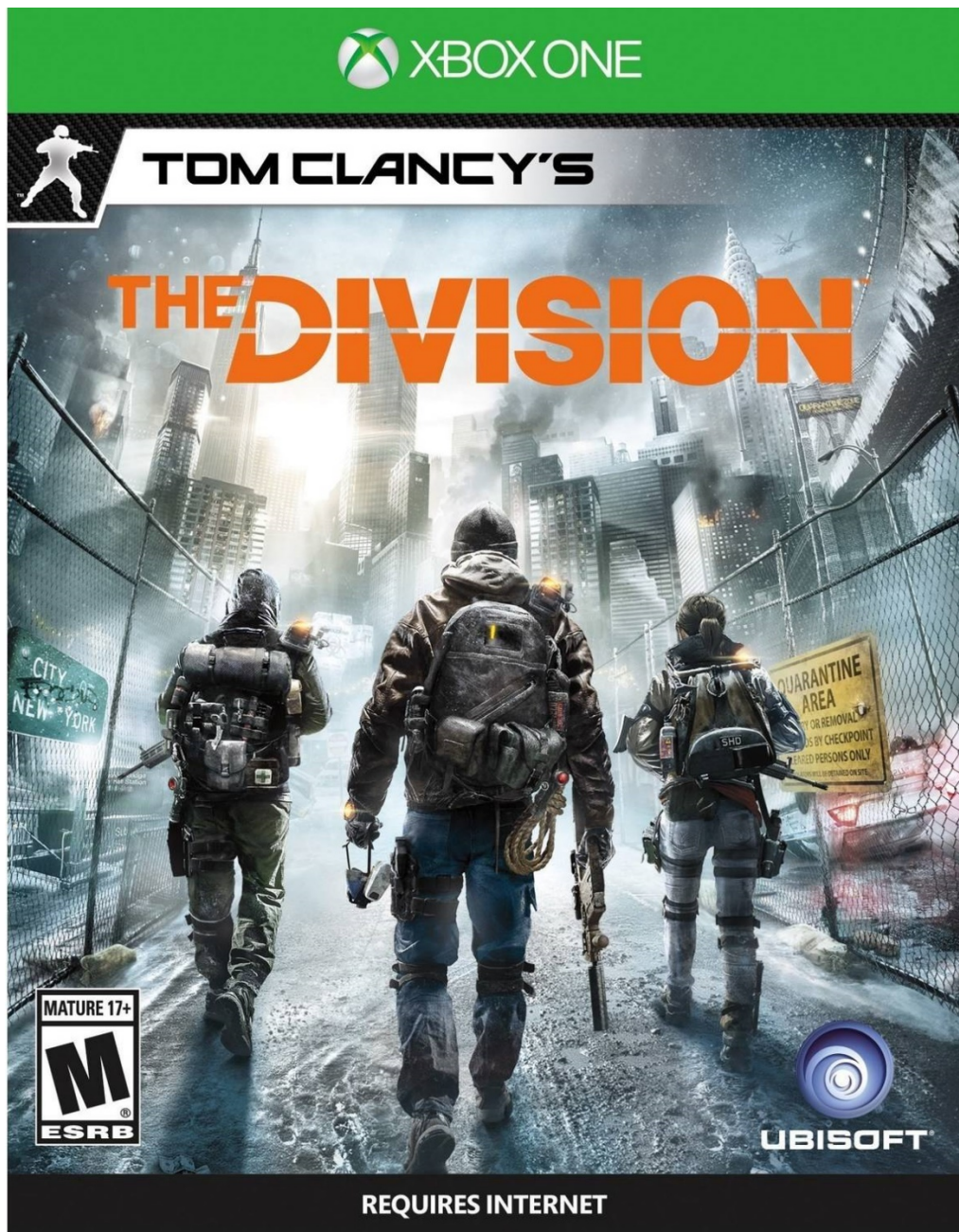


The back of the box for *Killer Instinct: Definitive Edition* for Xbox One features artwork from the game and images from game screens. The words “Fight On!” appear in large bold letters, along with the text “Discover your Killer Instinct! Play the legendary fighting game with stunning 60 FPS visuals, over-the-top action, a wild cast of combatants, rocking reactive music, and C-C-C-COMBO BREAKERS!” The box also lists as features the game’s 26 characters and 20 stages, and exclusive behind-the-scenes videos, artwork and soundtrack. The rest of the box lists disclosures in fine print and various company logos.



## Exhibit A-9

*Tom Clancy's The Division* Box Art (Xbox One)



The front box art for *Tom Clancy's The Division* on Xbox One features three individuals armed with backpacks, ropes, and weapons walking towards smoking city buildings in the distance and past a fence with a sign labeled "Quarantine Area." There is a Ubisoft logo and the ESRB "M" for mature logo. At the top there is a banner that reads "Xbox One" and at the bottom is a banner in all black that reads "Requires Internet" in bold white capital letters.

## Exhibit A-9 Cont.

### Tom Clancy's The Division Box Art (Xbox One)



**WHEN SOCIETY FALLS, WE RISE.**

In the wake of a devastating pandemic that sweeps through New York, basic services fail one by one, and without access to food or water, the city quickly descends into chaos. As an agent of The Division, you'll specialize, modify, and level up your gear, weapons, and skills to take back New York on your own terms.

**LIVING OPEN WORLD**  
Explore the city, build your base of operations, and find the source of the virus.

**MODERN MILITARY RPG**  
Defeat brutal enemies by leveling up and acquiring new gear, skills, and weapons.

**IMMERSIVE MULTIPLAYER**  
Battle players for epic loot, or play co-op with up to three teammates!

	Xbox One	Xbox Live
Players	1	2-24
Co-op		2-4
Impulse Triggers		•

**DOLBY DIGITAL** **SNOW DROP** **Autodesk HUMANIK** **100% RECYCLED** **Uplay**

**dts Digital Surround** **havok** **FACE FX**

For use only with Xbox One™ systems. Game disc and up to 40 GB storage required. Additional storage, hardware, and Xbox Live® may be required for setup, some updates and features, including retention of some gameplay settings and information. See [xbox.com/xboxone/gettingstarted](http://xbox.com/xboxone/gettingstarted). Storage requirements subject to change. Unauthorized copying, reverse engineering, transmission, public performance, rental, pay for play, or circumvention of copy protection is strictly prohibited.

**Xbox Live System Requirements:** Broadband internet (ISP fees apply), and Microsoft® account required. In supported games, paid subscription required for online multiplayer. Features and system requirements vary by country and over time. Not available in all countries, see [xbox.com/live/countries](http://xbox.com/live/countries). Subject to Terms of Use at [xbox.com/live/terms](http://xbox.com/live/terms). See [xbox.com/live](http://xbox.com/live) for full details.

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**UBP50401055-CVR**

**MATURE 17+**  
**Blood Intense Violence Strong Language**

**8 87256 01451 3**  
MADE IN USA

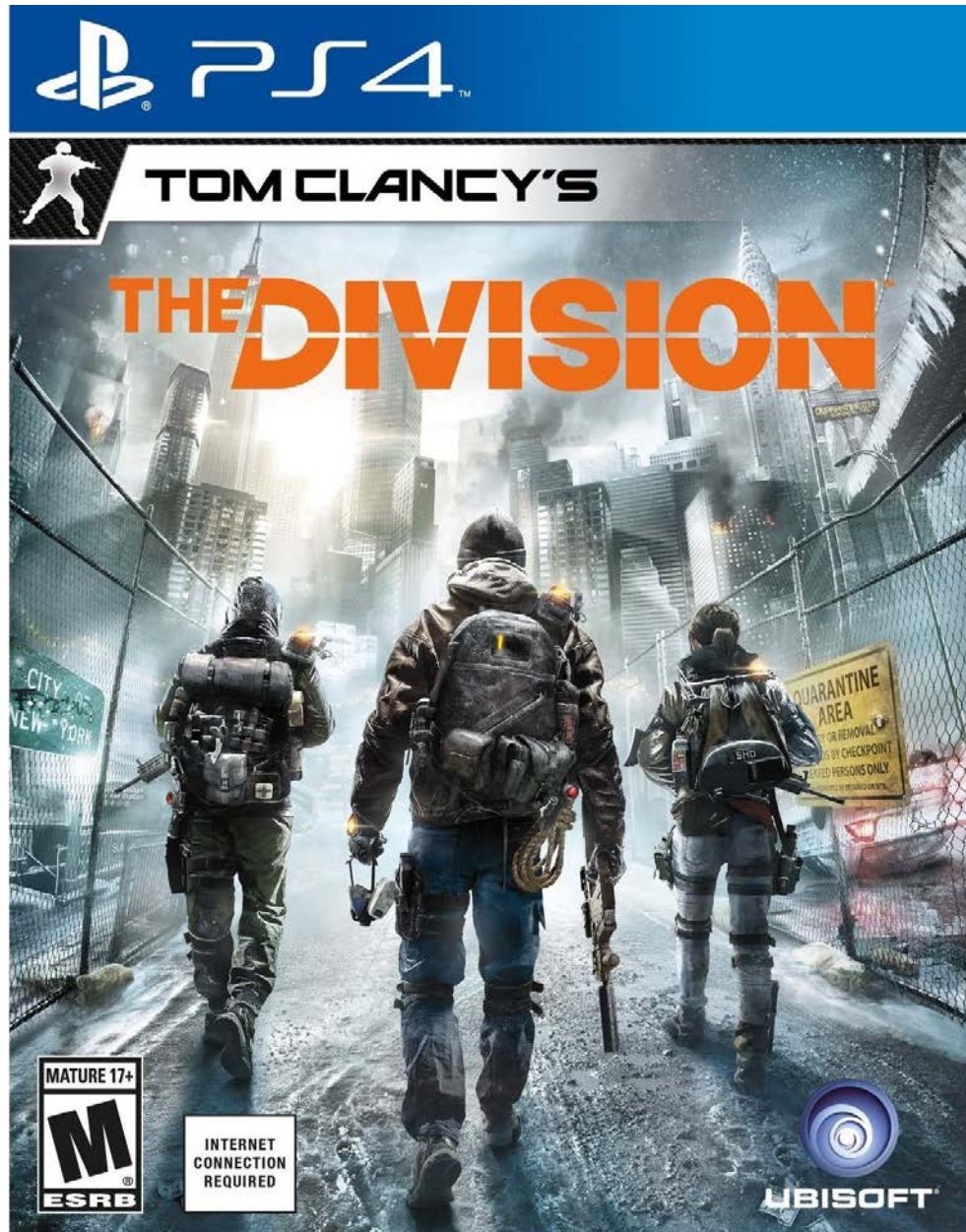
**WARNING** Read inside the case for information about photosensitive seizures and other important safety and health information.

The back of the box for *Tom Clancy's The Division* for Xbox One reads “When society falls, we rise” in capital letters at the top of the box, along with a paragraph explaining the game’s setting, New York City after a devastating pandemic has taken place. There is a prominent image of a soldier armed with a large gun and three smaller game screen depictions that include descriptions of the game’s features: “Living Open World,” Modern Military RPG,” and “Immersive Multiplayer.” The back of the box also features a number of logos and disclosures in small type.



## Exhibit A-10

*Tom Clancy's The Division* Box Art (PlayStation 4)



The front box art for *Tom Clancy's The Division* on PS4 features three individuals armed with backpacks, ropes, and weapons walking towards smoking city buildings in the distance and past a fence with a sign labeled “Quarantine Area.” At the top is a large banner that reads “PS4” and features the PlayStation logo. The box also includes a Ubisoft logo and the ESRB Rated “M” for mature logo. Next to the ESRB logo is a white box that reads “Internet Connection Required” in all black capital letters.

## Exhibit A-10 Cont.

### Tom Clancy's The Division Box Art (PlayStation 4)

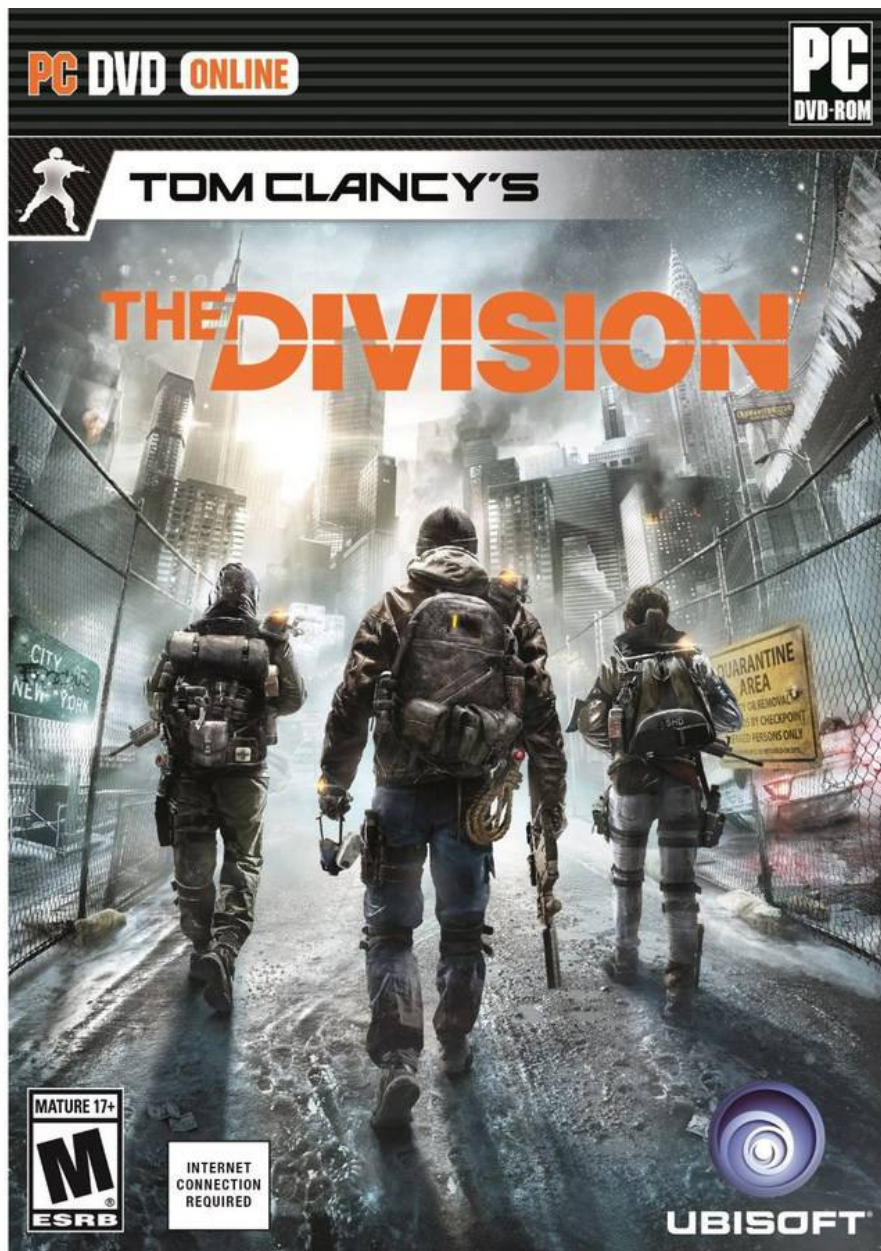


The back of the box for *Tom Clancy's The Division* for PlayStation 4 reads “When society falls, we rise” in capital letters at the top of the box, along with a paragraph explaining the game’s setting, New York City after a devastating pandemic has taken place. There is a prominent image of a soldier armed with a large gun and three smaller game screen depictions that include descriptions of the game’s features: “Living Open World,” Modern Military RPG,” and “Immersive Multiplayer.” The back of the box also features a number of logos and disclosures in small type including a brief note that “In supported games, paid subscription required for online multiplayer.”



## Exhibit A-11

*Tom Clancy's The Division* Box Art (PC)

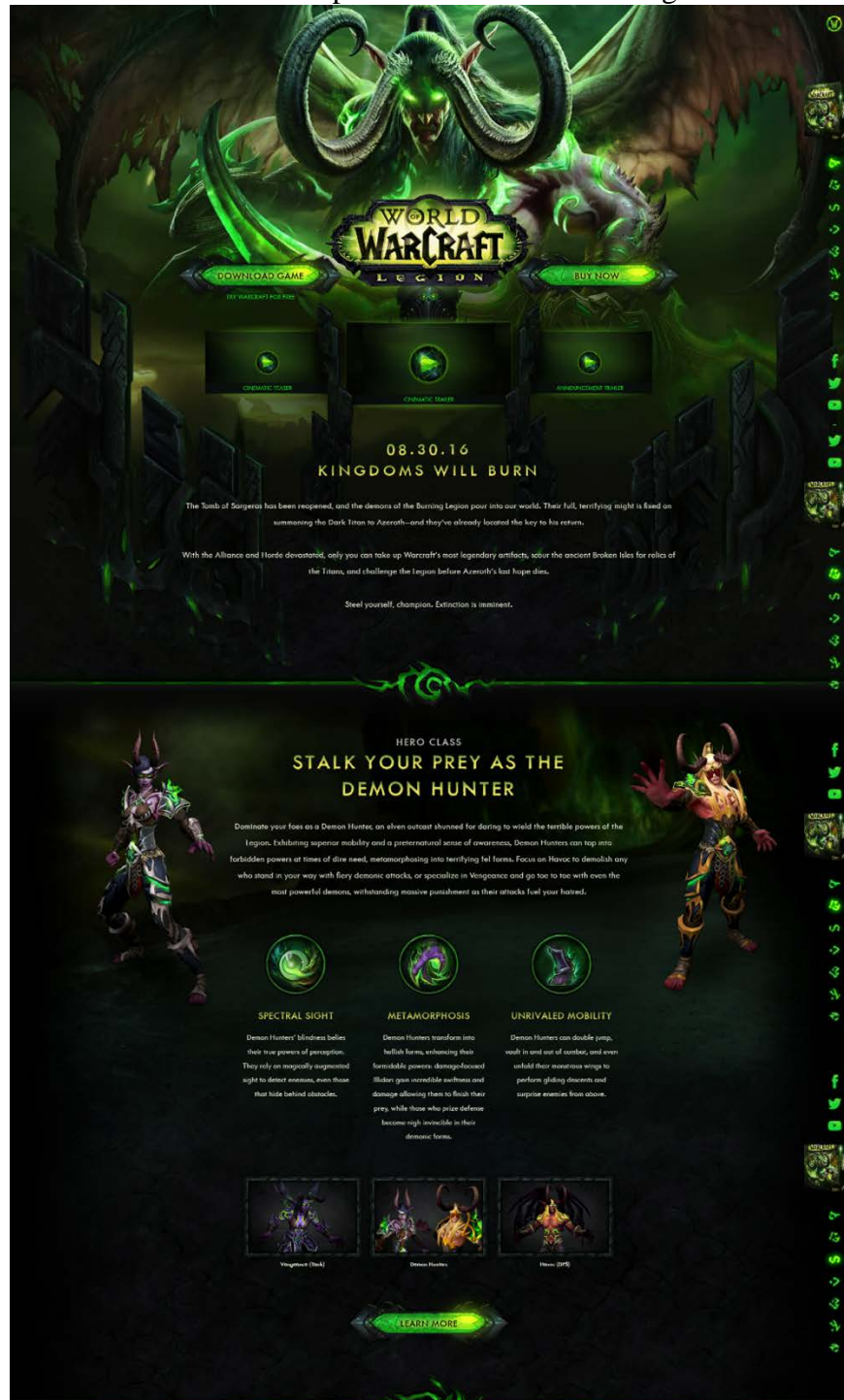


The box art for the PC version of *Tom Clancy's The Division* Box Art features three individuals armed with backpacks, ropes, and weapons walking towards smoking city buildings in the distance and past a fence with a sign labeled "Quarantine Area." There is a banner at the top with logos that read "PC DVD ONLINE" and "PC DVD-ROM." There are also logos for Ubisoft and the ESRB's "M" rating for Mature. Next to the ESRB logo is a white box that reads "Internet Connection Required" in all capital letters.



## Exhibit A-12

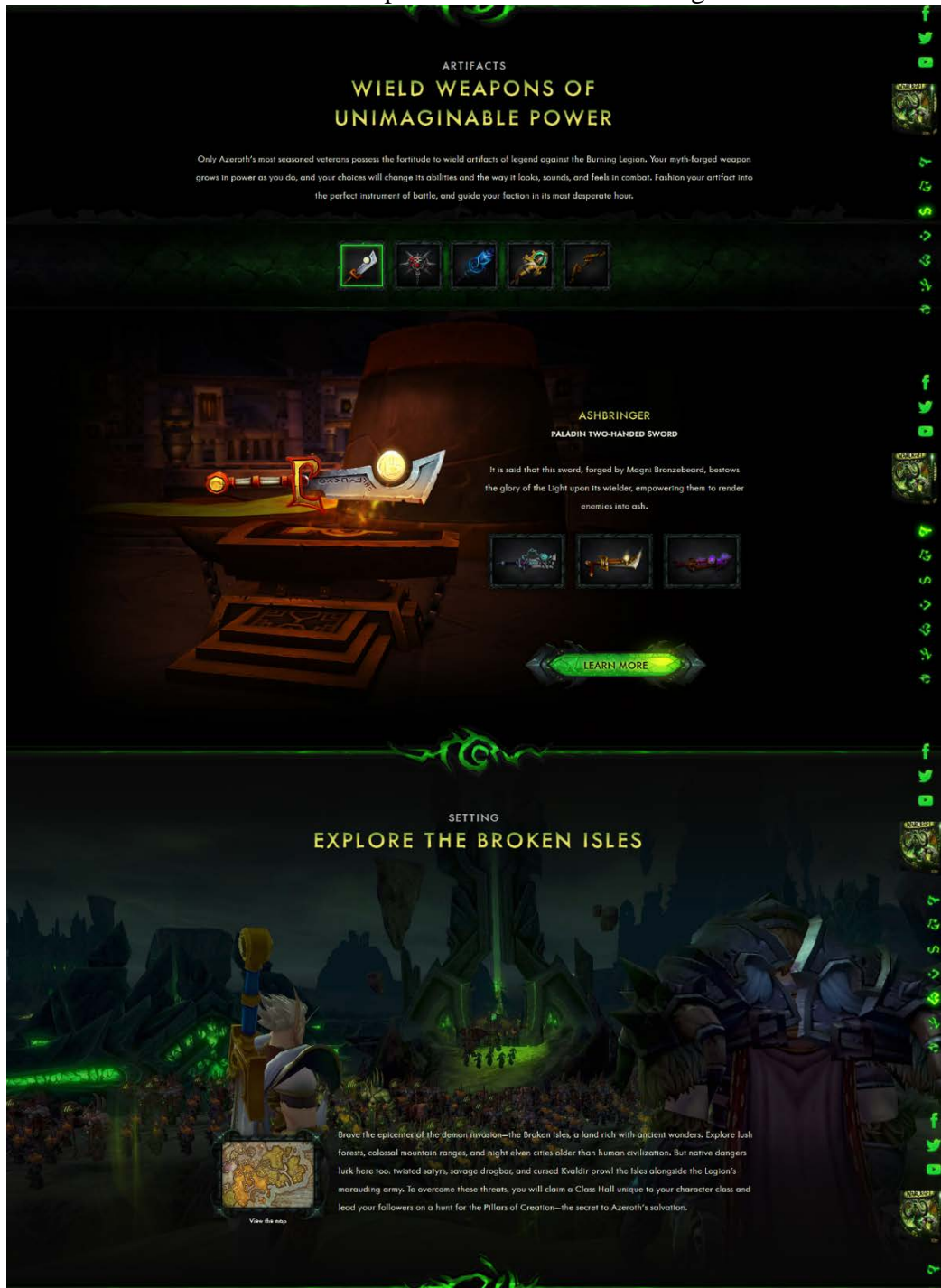
Screen Capture of the *World of Warcraft: Legion* website  
Available at <http://us.battle.net/wow/en/legion/>



This image is the first portion of a screen capture of the scrollable *World of Warcraft: Legion* website featuring release date, premise, and abilities of the hero class, the “Demon Hunter.”

## Exhibit A-12 Cont.

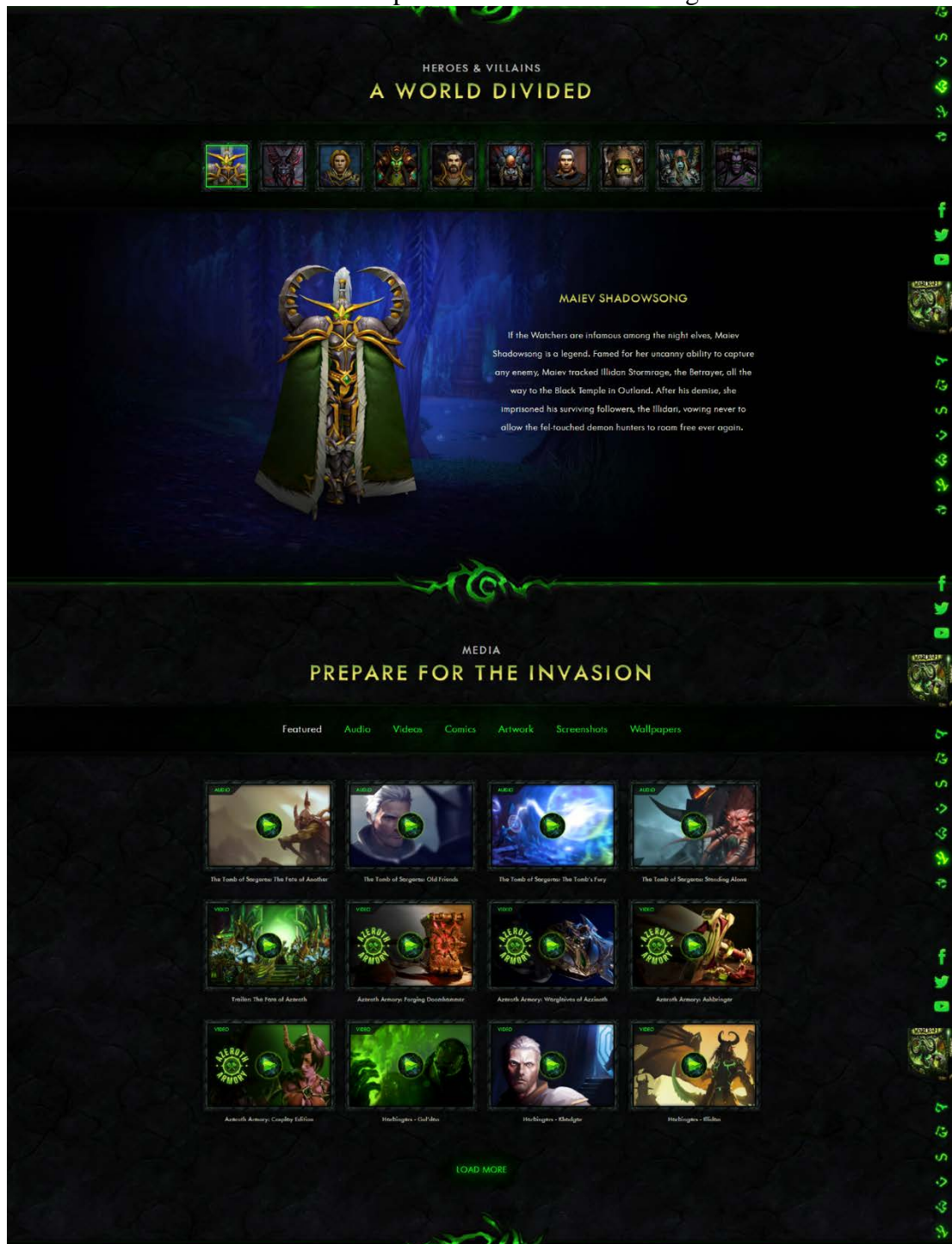
Screen Capture of the *World of Warcraft: Legion* website  
Available at <http://us.battle.net/wow/en/legion/>



This image is the second portion of a screen capture of the scrollable *World of Warcraft: Legion* website featuring artifacts such as “Ashbringer,” a paladin two-handed sword, and the setting of the Broken Isles.

## Exhibit A-12 Cont.

Screen Capture of the *World of Warcraft: Legion* website  
Available at <http://us.battle.net/wow/en/legion/>

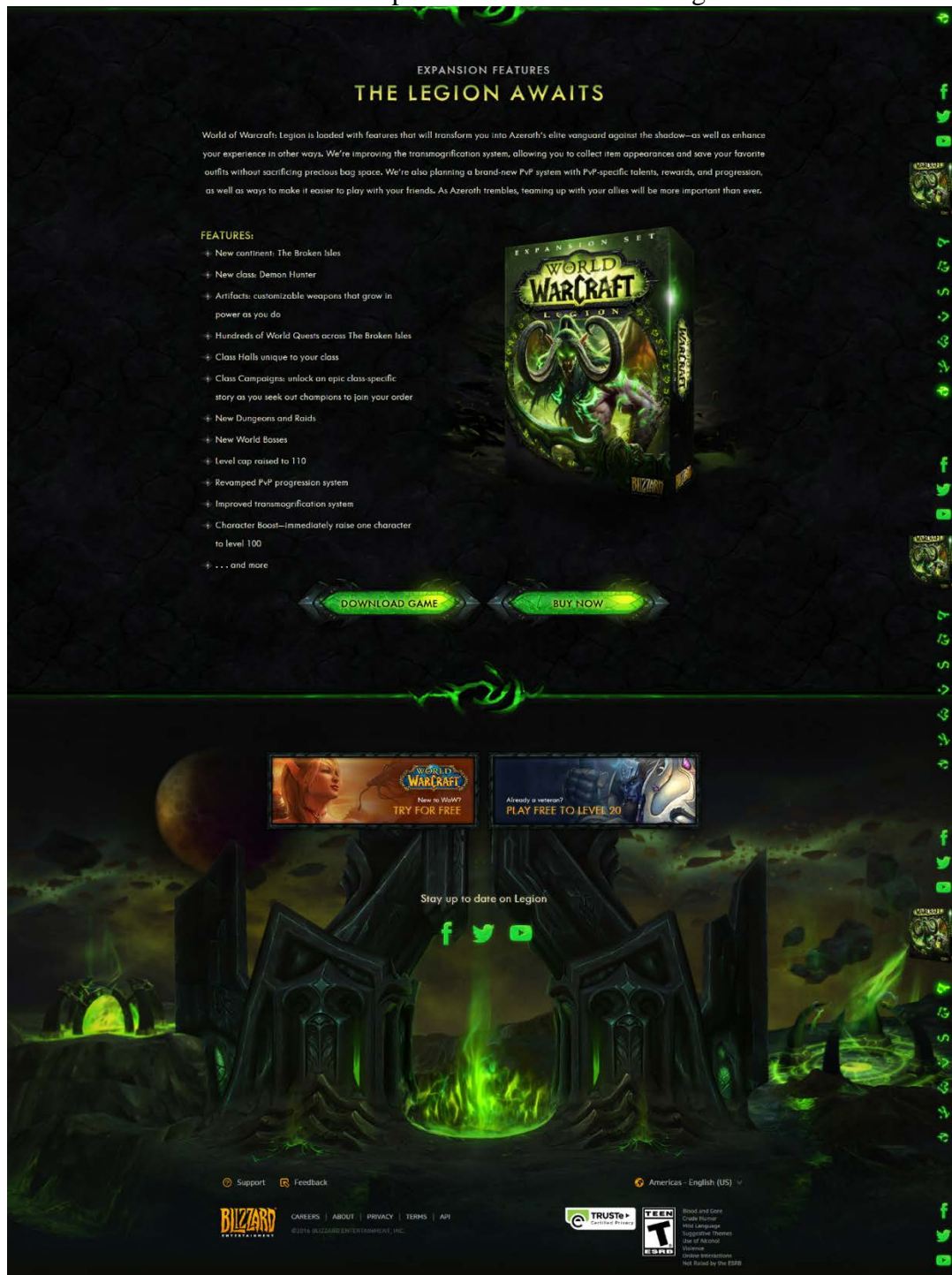


This image is the third portion of a screen capture of the scrollable *World of Warcraft: Legion* website featuring the available heroes and villains and a series of media including trailers, audio, and artwork.



## Exhibit A-12 Cont.

Screen Capture of the *World of Warcraft: Legion* website  
Available at <http://us.battle.net/wow/en/legion/>



This image is the final portion of a screen capture of the scrollable *World of Warcraft: Legion* website featuring other special additions of the Legion expansion including new dungeons, a raised level cap, and player vs. player progression system.

## Exhibit A-13

### *Overwatch Origins Edition* – GameStop Display (Front)



The GameStop display for Blizzard Entertainment's *Overwatch Origins Edition* has a large banner at the top reading "Available Now" with Xbox One, PS4, and PC|DVD logos underneath. Featured prominently is a character from the game dual-wielding handguns. The character is surrounded by quotes from publications reviewing the game, including: "Simply a blast to play – Forbes;" "Overwatch explodes with character – Polygon;" "Ridiculously good – Gamespot;" "The benchmark for all multiplayer games in 2016 – Polygon;" "One of the most highly anticipated games – Entertainment Weekly." In the bottom-left corner is the ESRB rating "T" for teen and in the bottom-right corner is a disclaimer stating "Promotional display only / may not be available / see associate."



## Exhibit A-13 Cont.

### Overwatch Origins Edition – GameStop Display (Back)

**AVAILABLE NOW**

XBOX ONE PS4 PC | DVD

**» THE FUTURE IS NOW. ARE YOU WITH US?**

Join the ranks of a legendary force of soldiers, scientists, adventurers, and oddities known as Overwatch™. Choose your hero and clash on the battlefields of tomorrow. Bend time, defy physics, and wield extraordinary powers in the ultimate team-based shooter.

» Choose among 21 heroes—each with a unique set of devastating, game-changing abilities.

» Switch heroes on the fly and change the course of battle.

» Unleash incredible powers like Dragonstrike, Transcendence, Graviton Surge, and many more.

**TEEN**  
**T**  
ESRB  
Blood  
Use of Tobacco  
Violence  
Online Interactions Not Rated by the ESRB

**BLIZZARD**  
ENTERTAINMENT

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#### PROMOTIONAL DISPLAY ONLY

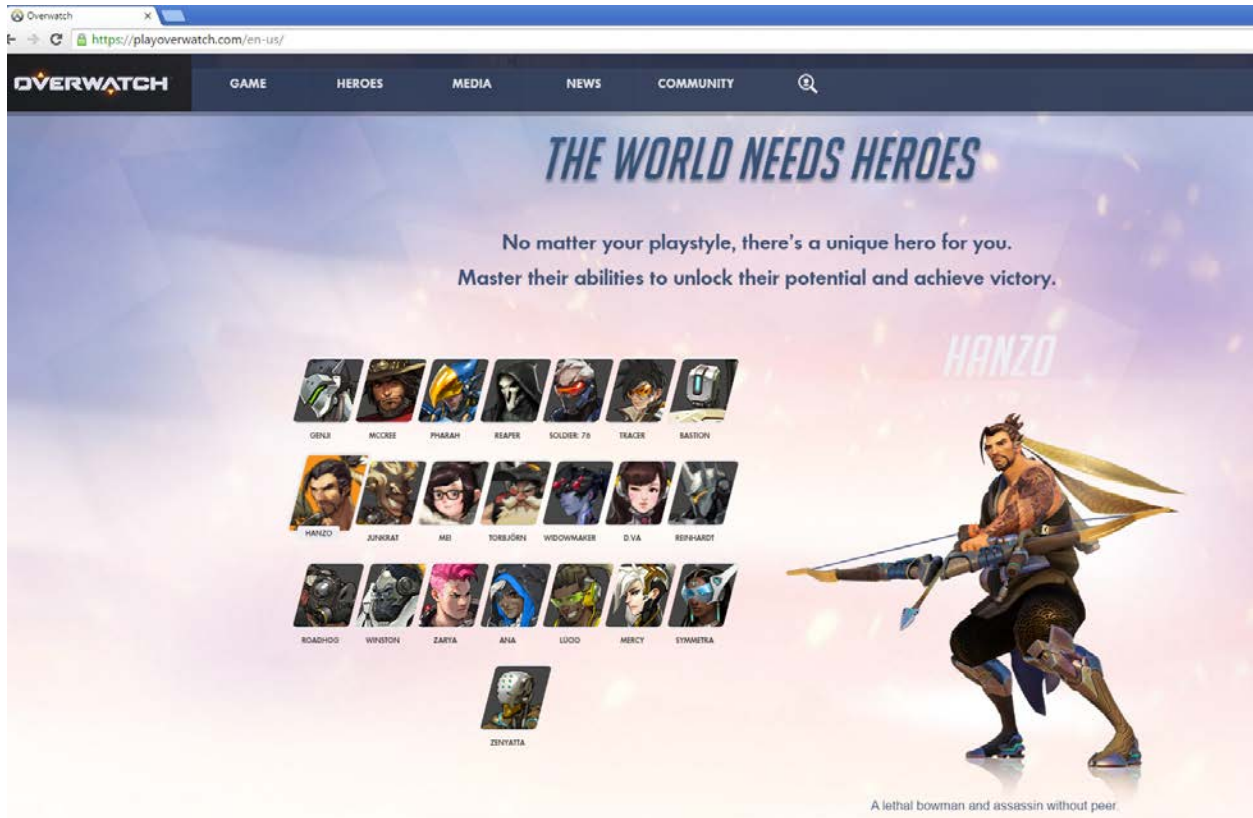
May not represent available stock,  
See store associate for availability.

**GameStop**  
POWER TO THE PLAYERS™

The back of the *Overwatch Origins Edition* display material includes screenshots of in-game action featuring characters charging and firing weapons at one another, and includes the text, “The future is now. Are you with us?” The screenshots’ captions describe in-game features, powers, and choices of heroes available to players. At the top and bottom are the same “Available Now” banner, “Promotional display only” disclaimer, Blizzard Entertainment logo, and ESRB “T” rating (noting blood, tobacco use, and violence) as on the front display. Additionally, there is the GameStop logo and fine print describing intellectual property at on the bottom of the display.

## Exhibit A-14

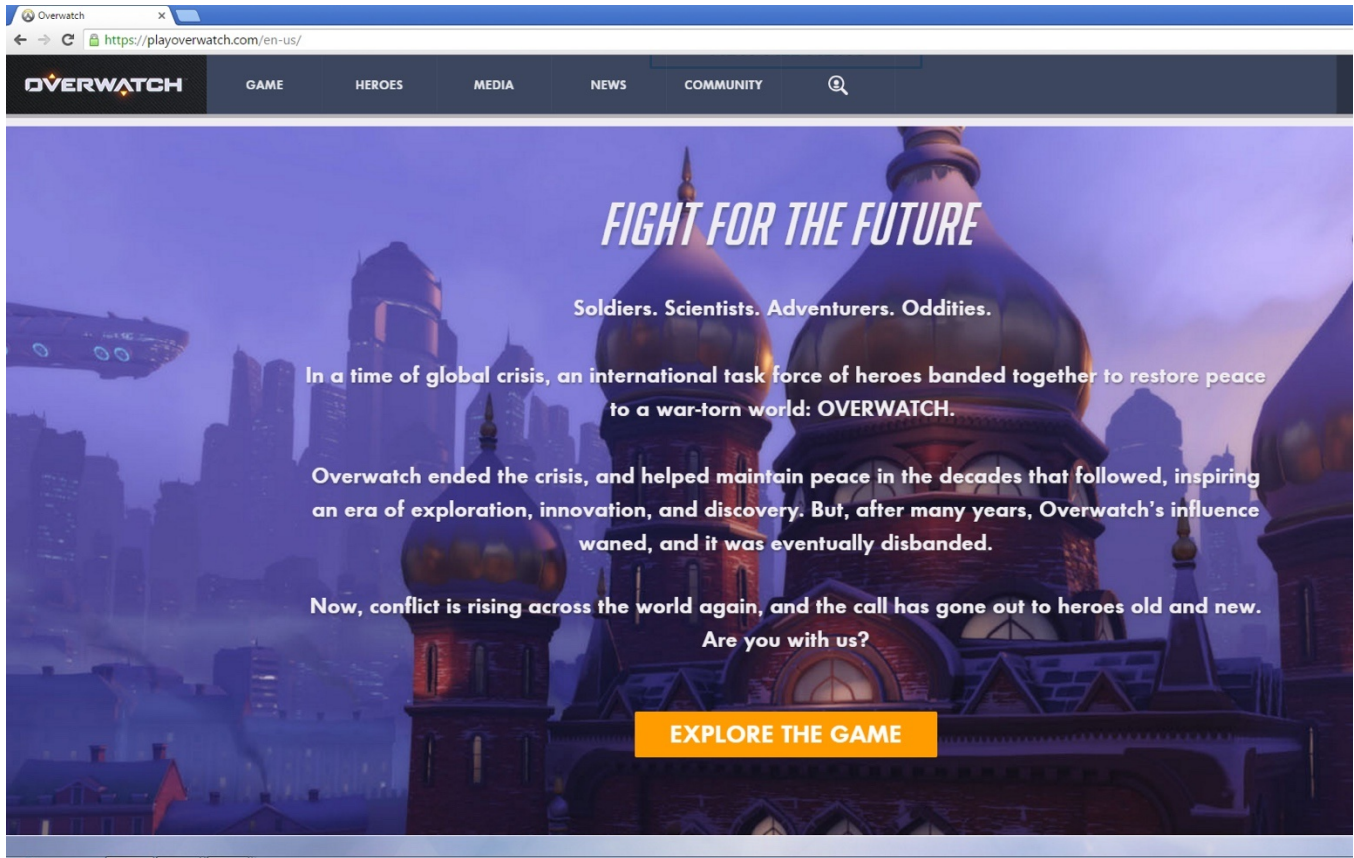
Screen Capture of the *Overwatch* Website  
Available at <https://playoverwatch.com/en-us/>



This screen capture of *Overwatch*'s website includes twenty-two character choices available to players with the heading, "The world needs heroes." The featured character Hanzo, described as a "lethal bowman and assassin without peer," nocking an arrow, tattooed, and clad in loose-fitting clothes and armored boots, appears to the right of the smaller headshots of the other characters. A website banner contains drop-down menus for the game, heroes, media, news, community, and a search function.

## Exhibit A-14 Cont.

Screen Capture of the *Overwatch* Website  
Available at <https://playoverwatch.com/en-us/>



This screen capture of *Overwatch*'s website displays an onion-domed structure in the foreground and a futuristic cityscape in the background. The text "Fight for the Future" is overlaid on these images. This webpage also includes text describing *Overwatch* as an international task force of heroes that brought peace to a war-torn world, and who must once again answer the call as conflict rises. At the bottom of the page is clickable text that states "Explore the game."




## Exhibit A-15

### Screen Capture of the *Overwatch* Website

Available at <https://playoverwatch.com/en-us/blog/20271526>

# WELCOME TO SEASON 2 OF COMPETITIVE PLAY

by Blizzard Entertainment 09/02/2016




Once again, it's time to put your *Overwatch* skills to the test—the second season of Competitive Play starts today! Before you get started on your placement matches, we wanted to give you the rundown on some of the updates we've made since the end of season.

## SKILL RATING CHANGES

For season 2, we've retooled the skill rating system. Instead of measuring player ratings on a 100-point scale, skill ratings will now range from 1 to 5000. This expanded scale should give players more detail about how their skill rating changes on a game-by-game basis.








We're also implementing skill rating decay. Now, players with a skill rating above 3000 will need to stay active in order to maintain their status. If they aren't able to complete at least one competitive match every 7 days, they will lose 50 points from their skill rating for every 24 hours they're out of the action. The decline will stop once the player completes a competitive match, and their skill rating won't drop below 3000.



## SKILL TIERS

In season 1, skill rating became a central part of nearly every conversation about Competitive Play. Because skill rating was the only gauge players had for their relative performance, and because the number constantly fluctuated throughout the season, changes in value could be frustrating. We didn't intend for competitive players to focus on that one number, and so this season, we're introducing seven discrete skill tiers. Depending on their skill rating, players will fall into one of these tiers, but climbing into the next tier is possible as you improve.

Here's the breakdown:

						
BRONZE 1-1499	SILVER 1500-1999	GOLD 2000-2499	PLATINUM 2500-2999	DIAMOND 3000-3499	MASTER 3500-3999	GRANDMASTER 4000 +

Each tier has a unique icon that will be displayed next to a player's name, so you'll be able to size up your competition at a glance. A detailed breakdown of the skill tiers, along with icons and information about the corresponding skill ratings can be found by pressing the "information" button under the Competitive Play menu.

This screenshot of *Overwatch*'s blog details updates to placement matches, including skill rating changes and skill tiers, and also features photos of the game and skill tier insignia.

## Exhibit A-15 Cont.

Screen Capture of the *Overwatch* Website






Available at <https://playoverwatch.com/en-us/blog/20271526>

For most skill tiers, players won't be moved down at any point during the season after they've been promoted into a new tier—even if their skill rating falls below the cutoff. However, players in the Master and Grandmaster tiers need to maintain the minimum skill rating, or they'll be moved into a lower tier.



### GROUPING RESTRICTIONS

In an effort to help provide a fair play environment across all skill levels, we're implementing grouping restrictions in Competitive Play. In most tiers, players will be unable to group if they have a skill rating difference of more than 1000 from their potential group mates. However, in the Master and Grandmaster tiers, the difference will need to be less than 500, and players who are Diamond-tier or above cannot group with someone who is completing their placement matches.

#### CAN GROUP WITHIN 1000 SKILL RATING

BRONZE	SILVER	GOLD	PLATINUM	DIAMOND
				


#### CAN GROUP WITHIN 500 SKILL RATING

MASTER	GRANDMASTER
	

### GAME MODES

Sudden Death is being removed this season, and we've incorporated an improved version of the time bank system that we've been using for *Overwatch*'s Assault maps into our Escort and Assault/Escort maps. If you're not familiar with the system, here's how it works.

Throughout the match, the game keeps track of how much time each team has left on the clock. When a competitive match is tied after both teams have played one round on offense and one on defense, a new attack/defend rotation will be played using the time bank system. The amount of time that each team will have for the second round depends on how much time was left on the clock at the end of their previous round.



When the second round is initiated, teams with less than 60 seconds remaining will have their time increased to 60 seconds, and an equal amount of time will always be added to the opposing team's clock. Also, on Assault and Assault/Escort maps, it's possible for the match to end in a draw if both teams are tied when the clock expires.

The overall round length of each competitive match has also been shortened by 60 seconds, which means players will have less time to capture points and escort payloads in the second season.

If you'd like to know more about the system, you can find a detailed breakdown [over on the forums](#).

Further changes described in the blog include grouping restrictions and game modes.


## Exhibit A-15 Cont.

Screen Capture of the *Overwatch* Website

Available at <https://playoverwatch.com/en-us/blog/20271526>

### COMPETITIVE POINTS

We're also updating our Competitive Point system. In season 2, players will now receive 10 points for winning a game. The cost of Golden Weapons will also be multiplied by 10, meaning that golden weapons will now cost 3,000 Competitive Points instead of 300. This increase allows us to reward players for participating in Competitive Play when the match ends in a draw.




Also, we're adding a soft cap to the number of Competitive Points that players can accrue. Once a player has collected 6,000 points, they will no longer accumulate points by winning games. They will, however, be granted the end-of-season rewards.

RANK	POINTS
BRONZE	100
SILVER	200
GOLD	400
PLATINUM	600
DIAMOND	1,000
MASTER	2,000
GRANDMASTER	3,000

### TOP 500

The Top 500 system is also undergoing a little refinement. In season 2, players will need to play at least 50 games to be eligible for a spot in the Top 500, and they'll also need to remain active throughout the season if they want to hold on to their spot. Anyone who hasn't played a competitive match within seven days will automatically drop out of the Top 500.



### LEAVER PENALTIES

Throughout the first season, one of the biggest pieces of feedback that we received had to do with people leaving during competitive games. Leaving is something that we want to actively discourage, and we're rethinking the penalties that occur when someone leaves a competitive match.

We recently added a 10-minute penalty for any players who leave an in-progress match, and starting in season 2, players will need to complete more matches without leaving before their account is returned to good standing.

Final changes detailed in the blog post include a Competitive Points system, Top 500 system, and penalties for players who leave an in-progress match.



## Exhibit A-16

### *Forza Motorsport 6* Box Art (Xbox One)



The box art of the ten year anniversary edition of *Forza Motorsport 6* features a banner that reads “Xbox One Exclusive” and a prominent image of a car racing in the foreground against a blurry backdrop. The front cover features the ESRB “E” for everyone rating and a logo and text noting that the game includes a ten year “anniversary car pack.”

**Exhibit A-16 Cont.**  
*Forza Motorsport 6* Box Art (Xbox One)

**THIS IS WHAT WE'VE BEEN RACING TOWARD**



**OVER 450 CARS\*\***  
**70+ HOUR CAREER MODE**  
**2-PLAYER SPLIT SCREEN RACING**  
**26 WORLD-FAMOUS DESTINATIONS**

**EXPERIENCE INTENSE ACTION AND STUNNING REALISM AT 1080P AND 60 FPS**



**TEST YOUR SKILLS AT NIGHT AND IN THE RAIN WITH 3D PUDDLES THAT CAUSE HYDROPLANING**

**NO TWO RACES ARE THE SAME WITH DRIVATAR™ OPPONENTS AND 24-CAR MULTIPLAYER\*\*\***

	Xbox One	Xbox Live
Players	1-2	2-24
Force feedback wheel		optional

**Forza Motorsport.net**

**TEN YEAR ANNIVERSARY CAR PACK**  
INCLUDES  
TEN FAVORITES FROM FORZA'S FIRST DECADE\*

**ESRB** **E** **EVERYONE**

Search for more detailed rating summaries at [esrb.org](http://esrb.org)

Online Interactions Not Rated by the ESRB

**WARNING** Read inside the case for information about photosensitive seizures and other important safety and health information.

0615 Part No. X20-40331-01

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The box art for the back of *Forza Motorsport 6* for Xbox One features a text banner that reads “This is what we’ve been racing toward,” along with an image of cars racing against a backdrop of mountains, city buildings, and a lake. A smaller text banner notes the game’s 450 cars, 70+ hour career mode, 2-player split screen racing, and 26 world-famous destinations. Three screen captures accompany text that reads, “Test your skills at night and in the rain with 3D puddles that cause hydroplaning,” “Experience intense action and stunning realism at 1080P and 60 FPS,” and “No two races are the same with Drivatar™ opponents and 24-car multiplayer.”

## Exhibit A-17

Screenshot of the *Forza Motorsport 6* Website

Available at <http://www.forzamotorsport.net/en-us/games/fm6/features>



This image is a screenshot of the *Forza Motorsport 6* website “Features” page. It highlights the vast array of customizable cars available, dynamic weather features, and the game’s high resolution and framerate.



## Exhibit A-17 Cont.

Screenshot of the *Forza Motorsport 6* Website

Available at <http://www.forzamotorsport.net/en-us/games/fm6/features>



**Ultimate Car Fantasy**

Collect and race over 450 ForzaVista cars, all featuring cockpits, damage and customization. Tour 26 world-famous locales, including 10 newly captured tracks, all built from the ground up for Xbox One. Relive the classic races and epic rivalries that have defined motorsports' greatest moments.



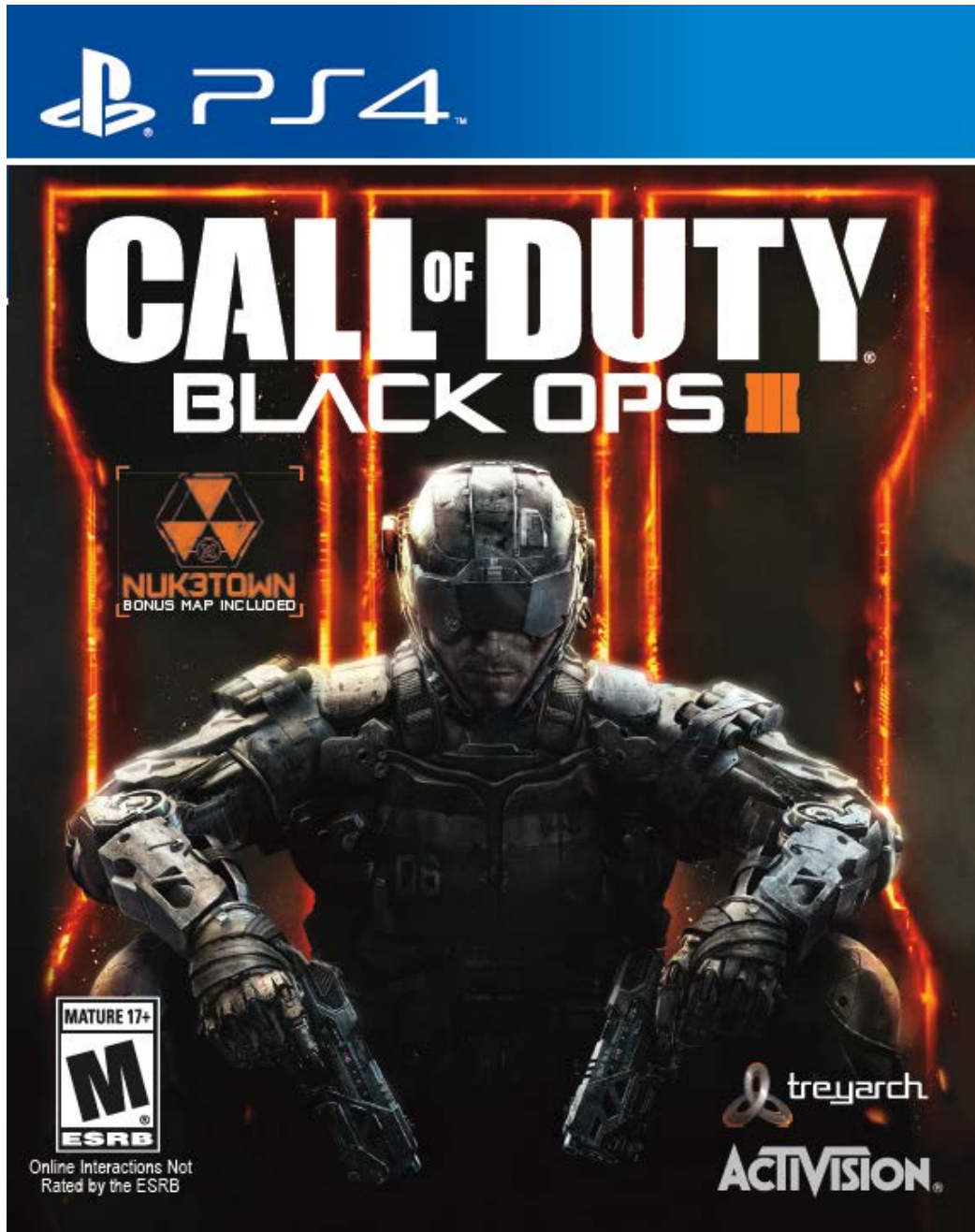
**Never Race Alone**

Home of the greatest racing, tuning and painting community in gaming. New Forza Race Leagues and online spectating combine to give everyone the thrill of professional competitive multiplayer racing. Compete in epic 24-player races in campaign mode and on Xbox Live. By learning to drive like your friends, Drivatar technology and the Xbox Live cloud deliver real human behavior, giving you dynamic human-like opponents.

This screenshot of the *Forza Motorsport 6* website “Features” page highlights race tracks and regions and online racing and spectating, including 24-player races on Xbox Live.

## Exhibit A-18

*Call of Duty: Black Ops III* Box Art (PlayStation 4)



The box art for *Call of Duty: Black Ops III* for the PlayStation 4 features an image of the game's lead character sitting, dressed in armor and holding two guns. There are logos from Activision, treyarch, and the ESRB's rating of "M" for mature, along with a note that online interactions are not rated by the ESRB. Another logo that reads "Nuketown" advertises that the game includes a bonus map.



**Exhibit A-18 Cont.**  
*Call of Duty: Black Ops III* Box Art (PlayStation 4)

THE BEST-SELLING FRANCHISE ON PS4™†

**PLAYSTATION EXCLUSIVE™**  
PLAY MAP PACKS 30 DAYS EARLY

DELIVERING 3 EXPANSIVE AND DISTINCT GAME EXPERIENCES

**CAMPAIGN CO-OP** **MULTIPLAYER** **ZOMBIES**

1 - 2 PLAYERS  
HDD 50GB MINIMUM  
2 - 18 NETWORK PLAYERS  
ONLINE PLAY (OPTIONAL)\*  
DUALSHOCK®4  
REMOTE PLAY

†† DLC Map Packs, when available, will launch on PS4 30 days prior to launch on other platforms. Map Packs sold separately.

treyarch  
ACTIVISION

\*Online multiplayer requires a PlayStation Plus membership. Remote Play requires PS Vita system and sufficiently robust Wi-Fi connection. Software subject to license and limited warranty (terms at [us.playstation.com/softwarelicense](http://us.playstation.com/softwarelicense)). SCEA may retire the online portion of this game at any time. Licensed for play on PS4 systems in the Americas. Manufactured and printed in the U.S.A. "Blu-ray Disc", "Blu-ray", and "Blu-ray Disc" logo are trademarks. PSN online features require broadband Internet service and a Sony Entertainment Network ("SEN") account. Use of PSN and SEN account are subject to the Terms of Service and User Agreement and applicable privacy policy (see terms at [sonyentertainmentnetwork.com/terms-of-service](http://sonyentertainmentnetwork.com/terms-of-service) & [sonyentertainmentnetwork.com/privacy-policy](http://sonyentertainmentnetwork.com/privacy-policy)).  
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†Based on North American physical game sales as of 07/01/15

playstation.com  
87458206US

ALL  
Activision Publishing, Inc.  
P.O. Box 67713, Los Angeles CA 90067

**WARNING** IF YOU HAVE A HISTORY OF EPILEPSY OR SEIZURES, CONSULT A DOCTOR BEFORE USE. CERTAIN PATTERNS MAY TRIGGER SEIZURES WITH NO PRIOR HISTORY. BEFORE USING AND FOR MORE DETAILS SEE INSTRUCTIONS FOR THIS PRODUCT.

**MATURE 17+**  
Blood and Gore  
Drug Reference  
Intense Violence  
Strong Language

0 47875 87458 9

Large text at the top of the back of the box for *Call of Duty: Black Ops III* notes that the game is the best-selling franchise on the PlayStation 4 and advertises early player access to game “map packs” on the PlayStation 4. The back of the box prominently features artwork from the game and shows different screens from the game to illustrate three different modes of game play. There are various fine print disclosures, including a note that voice chat requires purchase of a separate headset.

## Exhibit A-19

*Gears of War 4: Ultimate Edition* Box Art (Xbox One)



The box art for *Gears of War 4: Ultimate Edition* for Xbox One features a banner that reads “Xbox One Console Exclusive.” The cover art predominately features an image of three of the game’s characters engaged in battle. The ESRB’s logo appears on the cover, as well as a rating of “M” and smaller text that reads “Mature 17+.” The game’s cover also advertises the inclusion of four bonus games plus a season pass that “includes 24 maps and more.”



**Exhibit A-19 Cont.**  
*Gears of War 4: Ultimate Edition* Box Art (Xbox One)

# A NEW SAGA BEGINS

FOR ONE OF THE MOST ACCLAIMED VIDEOGAME FRANCHISES IN HISTORY.



**CAMPAIGN**  
Play solo or co-op in split-screen or on Xbox Live



**HORDE 3.0**  
Five player co-op survival with classes, skills and fortifications



**VERSUS**  
Brutal 60 FPS action on dedicated servers or LAN

	Xbox One	Xbox Live
Players	1-2	2-8
Co-op	2	2-5
Impulse Triggers		*
HDR Support		*



**Ultimate Edition Includes\* :**

- Xbox 360 Gears of War Collection for use on Xbox One
- Season Pass**
  - Vintage VIP Pack • 24 Maps,
  - Developer Playlist • Six gear packs

**MATURE 17+**  
**M**  
Blood and Gore  
Intense Violence  
Strong Language

Online Interactions Not Rated by the ESRB

**WARNING** Read enclosed information about photosensitive seizures and other important safety and health information.



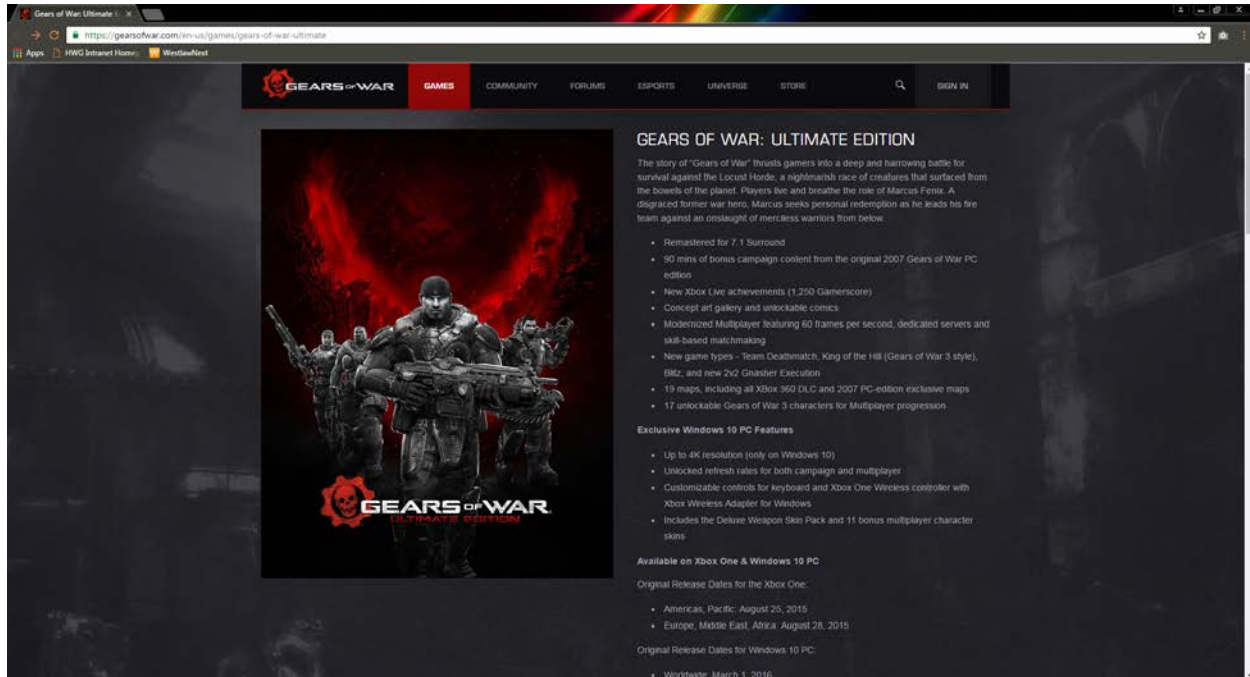
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For use only with Xbox One® systems. Game disc and up to 60 GB storage required. Additional storage, hardware, and Xbox Live® may be required for setup, some updates and features, including retention of some gameplay settings and information. See [xbox.com/xboxone/gettingstarted](http://xbox.com/xboxone/gettingstarted). Storage requirements subject to change. \* Includes Xbox 360 titles Gears of War, Gears of War 2, Gears of War 3 and Gears of War: Judgment. Each title works as part of the Xbox One Backward Compatibility program. 32 GB storage, Xbox One, broadband internet (ISP fees apply) and Xbox Live membership required. See [www.GearsOfWar.com](http://www.GearsOfWar.com) for the latest information. Gears of War 4 Season Pass requires Gears of War 4 game, multiplayer play, 36GB storage and broadband internet (ISP fees apply). Online multiplayer requires Xbox Live Gold subscription (sold separately).  
Xbox Live System Requirements: Broadband internet (ISP fees apply), and Microsoft® account required. In supported games, paid subscription required for online multiplayer. Features and system requirements vary by country and over time. Not available in all countries, see [xbox.com/live/countries](http://xbox.com/live/countries). Subject to Microsoft Services Agreement at [microsoft.com/msa](http://microsoft.com/msa). See [xbox.com/live](http://xbox.com/live) for full details.  
Microsoft Corporation, One Microsoft Way, Redmond, WA 98052-6399, USA.  
© 2016 Microsoft Corporation. Unreal, Unreal Engine, the circle-U logo and the Powered by Unreal Engine logo are trademarks or registered trademarks of Epic Games, Inc. in the United States and elsewhere.

The back of the box for *Gears of War 4: Ultimate Edition* includes a text banner that states “A new saga begins,” with smaller text under it noting that the game is “one of the most acclaimed videogame franchises in history.” There are three screenshot images from the game, along with descriptions of the game’s various modes of play. The box also features legal and health disclosures in fine print, descriptions of features exclusive to the Ultimate Edition, features compatible with Xbox Live, as well as various company logos.

## Exhibit A-20

Screenshot of *Gears of War: Ultimate Edition* Website  
Available at <https://gearsofwar.com/en-us/games/gears-of-war-ultimate>



This screenshot of the *Gears of War: Ultimate Edition* website includes text describing the story of the game, which features disgraced war hero Marcus Fenix as the main character. It also includes descriptions of bonus campaign content, new game types, maps, and characters, and exclusive features to Windows 10 PC, including “up to 4K” screen resolution and “unlocked refresh rates for both campaign and multiplayer” modes.

# **Exhibit B**



**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of

Implementation of Sections 716 and 717 of  
the Communications Act of 1934, as Enacted  
by the Twenty-First Century Communications  
and Video Accessibility Act of 2010

Entertainment Software Association Petition  
for Class Waiver of Sections 716 and 717 of  
the Communications Act and Part 14 of the  
Commission's Rules Requiring Access to  
Advanced Communications Services (ACS)  
and Equipment by People with Disabilities

CG Docket No. 10-213

**DECLARATION OF MIKE PACIELLO**

1. My name is Mike Paciello. I am the founding partner of The Paciello Group, an accessibility agency specializing in accessibility and usability testing, as well as support and training for the technical implementation of accessibility solutions to the computer software industry. I have been active in the accessibility industry for more than thirty years.

2. As well as founding The Paciello Group, I was the co-chair of the United States Federal Access Board's Telecommunications and Electronic and Information Technology Advisory Committee and am co-founder of the International Committee for Accessible Document Design. I also wrote the first book on web accessibility and usability, Web Accessibility for People with Disabilities, and was invited by the United Nations to speak at the Global Initiative for Inclusion Information and Communication Technologies.

3. I am an expert in user interface design, user experience and usability practices and methods involving individuals with disabilities, as well as interoperability between emerging technologies, including advanced communications services, and assistive technologies.

4. I have reviewed the Entertainment Software Association's ("ESA's") petition for an extension of its existing waiver of the Commission's accessibility rules for Advanced Communications Services ("ACS") for video game software that is capable of accessing ACS but designed primarily for purposes other than the use of ACS.

5. I have previously examined the technical constraints facing developers of video games, and explained why these are substantially different, and often more restrictive, than those facing developers of other products that include features used for communications, thereby creating challenges associated with applying existing assistive technologies from other product categories to video games. My findings were set forth in a declaration that accompanied a waiver petition that the FCC granted last year. That declaration is publicly available on the FCC's website at <https://ecfsapi.fcc.gov/file/60001049004.pdf>.

6. Many of the factors that I identified last year continue to pose significant challenges for video game accessibility today.

7. As explained in detail in my 2015 declaration, video games are unlike most other types of software that include communications functions, and typically involve highly specialized code that maximizes the use of computer processing capacity to render visual elements on the screen—often at very high resolution and frame rates. These games effectively operate in a self-contained environment that is conceptually similar to an independent operating system within the host hardware's operating system.

8. These technical restrictions have limited the transfer of existing assistive technologies from other product categories—such as screen readers developed for PCs—to video games. These restrictions similarly present challenges in developing platform-level technologies, including assistive technologies, for game consoles that could be readily repurposed in the games themselves.

9. Interactive gaming environments are often fast-paced, and games that include ACS functions frequently involve multiple participants communicating at the same time. These considerations have limited the practicality of using emergent assistive technologies, such as speech-to-text, in games notwithstanding their recent application in other communications environments. This is so for several reasons.

- a. First, natural conversational human-to-human speech is the most challenging scenario for speech recognition technologies. Although humans make discrete commands to digital assistants, such as “what is the weather?” or “when is my next appointment?”, conversational speech is far more disfluent, contains more pauses, interruptions, and restarts, and generally has longer utterances. Individuals engaging in conversational speech are also more likely to switch topics in an unpredictable manner, reducing context, and to be less careful about pronouncing words.
- b. Online gaming augments these factors because individuals playing video games are often reacting to actions taking place in a fast-paced, competitive environment. This results in increased disfluency and engaging in emotional speech manifested by yelling and speaking more rapidly than in typical conversation. Each of these factors alter speech in ways that make it harder for

current speech-to-text technologies to recognize and process, thereby reducing transcription accuracy.

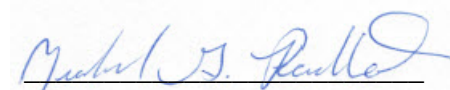
- c. Gaming conditions also exacerbate challenges with automated speech recognition due to factors such as music playing in the background, speaking while eating, varying and unpredictable acoustic headset quality, and distance from microphones. Moreover, participants in games also often use a unique lexicon featuring game-specific terms and slang.
- d. The presence of multiple participants attempting to speak at the same time, which is common in on-line gaming environments, creates additional difficulties for automated speech transcription. This is the case both because the noise of multiple speakers makes it more difficult to discern individual words, and because speech recognition systems rely on context in which words are being spoken in order to improve accuracy.

10. Finally, as explained in my previous declaration, assistive technology developers' focus has, to date, been far greater in the areas of core information and communications, as well as in fields such as education and employment. As a result, these developers continue to prioritize these uses over most entertainment markets, with the exception of entertainment software as an adjunct to learning, such as in elementary school-level educational applications. While we see increased interest in the area of ACS and gaming, we find that developer priorities remain the same today.

11. In summary, there remain practical, compelling reasons why applying assistive technologies to video game software presents substantial technical challenges.



I, Mike Paciello, declare under penalty of perjury that the foregoing declaration is true and correct. Executed on October 18, 2016.



Mike Paciello